

110TH CONGRESS
1ST SESSION

H. R. 3221

AN ACT

Moving the United States toward greater energy independence and security, developing innovative new technologies, reducing carbon emissions, creating green jobs, protecting consumers, increasing clean renewable energy production, and modernizing our energy infrastructure, and to amend the Internal Revenue Code of 1986 to provide tax incentives for the production of renewable energy and energy conservation.

1 *Be it enacted by the Senate and House of Representa-*
 2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLES; TABLE OF CONTENTS.**

4 (a) SHORT TITLES.—This Act may be cited as the
 5 “New Direction for Energy Independence, National Secu-
 6 rity, and Consumer Protection Act” and the “Renewable
 7 Energy and Energy Conservation Tax Act of 2007”.

8 (b) TABLE OF CONTENTS.—The table of contents for
 9 this Act is as follows:

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1 **DIVISION A—NEW DIRECTION**
2 **FOR ENERGY INDEPEND-**
3 **ENCE, NATIONAL SECURITY,**
4 **AND CONSUMER PROTECTION**
5 **ACT**

6 **TITLE I—GREEN JOBS**

7 **SEC. 1001. SHORT TITLE.**

8 This title may be cited as the “Green Jobs Act of
9 2007”.

10 **SEC. 1002. ENERGY EFFICIENCY AND RENEWABLE ENERGY**
11 **WORKER TRAINING PROGRAM.**

12 Section 171 of the Workforce Investment Act of 1998
13 (29 U.S.C. 2916) is amended by adding at the end the
14 following:

15 “(e) ENERGY EFFICIENCY AND RENEWABLE EN-
16 ERGY WORKER TRAINING PROGRAM.—

17 “(1) GRANT PROGRAM.—

18 “(A) IN GENERAL.—Not later than 6
19 months after the date of enactment of the
20 Green Jobs Act of 2007, the Secretary, in con-
21 sultation with the Secretary of Energy, shall es-
22 tablish an energy efficiency and renewable en-
23 ergy worker training program under which the
24 Secretary shall carry out the activities described

1 in paragraph (2) to achieve the purposes of this
2 subsection.

3 “(B) ELIGIBILITY.—For purposes of pro-
4 viding assistance and services under the pro-
5 gram established under this subsection—

6 “(i) target populations of eligible indi-
7 viduals to be given priority for training
8 and other services shall include—

9 “(I) workers affected by national
10 energy and environmental policy;

11 “(II) individuals in need of up-
12 dated training related to the energy
13 efficiency and renewable energy indus-
14 tries; and

15 “(III) veterans, or past and
16 present members of reserve compo-
17 nents of the Armed Forces;

18 “(IV) unemployed workers;

19 “(V) individuals, including at-risk
20 youth, seeking employment pathways
21 out of poverty and into economic self-
22 sufficiency; and

23 “(VI) formerly incarcerated, ad-
24 judicated, non-violent offenders;

1 “(ii) energy efficiency and renewable
2 energy industries eligible to participate in
3 a program under this subsection include—

4 “(I) the energy-efficient building,
5 construction, and retrofits industries;

6 “(II) the renewable electric power
7 industry;

8 “(III) the energy efficient and
9 advanced drive train vehicle industry;

10 “(IV) the biofuels industry;

11 “(V) the deconstruction and ma-
12 terials use industries;

13 “(VI) the energy efficiency as-
14 sessment industry serving the residen-
15 tial, commercial, or industrial sectors;
16 and

17 “(VII) manufacturers that
18 produce sustainable products using
19 environmentally sustainable processes
20 and materials.

21 “(2) ACTIVITIES.—

22 “(A) NATIONAL RESEARCH PROGRAM.—

23 Under the program established under para-
24 graph (1), the Secretary, acting through the
25 Bureau of Labor Statistics, where appropriate,

1 shall collect and analyze labor market data to
2 track workforce trends resulting from energy-
3 related initiatives carried out under this sub-
4 section. Activities carried out under this para-
5 graph shall include—

6 “(i) tracking and documentation of
7 academic and occupational competencies as
8 well as future skill needs with respect to
9 renewable energy and energy efficiency
10 technology;

11 “(ii) tracking and documentation of
12 occupational information and workforce
13 training data with respect to renewable en-
14 ergy and energy efficiency technology;

15 “(iii) collaborating with State agen-
16 cies, workforce investments boards, indus-
17 try, organized labor, and community and
18 nonprofit organizations to disseminate in-
19 formation on successful innovations for
20 labor market services and worker training
21 with respect to renewable energy and en-
22 ergy efficiency technology;

23 “(iv) serving as a clearinghouse for
24 best practices in workforce development,

1 job placement, and collaborative training
2 partnerships;

3 “(v) promoting the establishment of
4 workforce training initiatives with respect
5 to renewable energy and energy efficiency
6 technologies; and

7 “(vi) linking research and develop-
8 ment in renewable energy and energy effi-
9 ciency technology with the development of
10 standards and curricula for current and
11 future jobs;

12 “(vii) assessing new employment and
13 work practices including career ladder and
14 upgrade training as well as high perform-
15 ance work systems;

16 “(viii) providing technical assistance
17 and capacity building to national and state
18 energy partnerships, including industry
19 and labor representatives.

20 “(B) NATIONAL ENERGY TRAINING PART-
21 NERSHIP GRANTS.—

22 “(i) IN GENERAL.—Under the pro-
23 gram established under paragraph (1), the
24 Secretary shall award National Energy
25 Training Partnerships Grants on a com-

petitive basis to eligible entities to enable such entities to carry out training that leads to economic self-sufficiency and to develop an energy efficiency and renewable energy industries workforce. Grants shall be awarded under this subparagraph so as to ensure geographic diversity with at least 2 grants awarded to entities located in each of the 4 Petroleum Administration for Defense Districts with no subdistricts, and at least 1 grant awarded to an entity located in each of the subdistricts of the Petroleum Administration for Defense District with subdistricts, as such districts are established by the Secretary of Energy.

“(ii) ELIGIBILITY.—To be eligible to receive a grant under clause (i), an entity shall be a non-profit partnership that—

“(I) includes the equal participation of industry, including public or private employers, and labor organizations, including joint labor-management training programs, and may include workforce investment boards, community-based organizations, edu-

1 cational institutions, small businesses,
2 cooperatives, State and local veterans
3 agencies, and veterans service organi-
4 zations; and

5 “(II) demonstrates—

6 “(aa) experience in imple-
7 menting and operating worker
8 skills training and education pro-
9 grams;

10 “(bb) the ability to identify
11 and involve in training programs
12 carried out under this grant, tar-
13 get populations of workers who
14 would benefit from activities re-
15 lated to energy efficiency and re-
16 newable energy industries; and

17 “(cc) the ability to help
18 workers achieve economic self-
19 sufficiency.

20 “(iii) PRIORITY.—Priority shall be
21 given to partnerships which leverage addi-
22 tional public and private resources to fund
23 training programs, including cash or in-
24 kind matches from participating employers.

1 “(C) STATE LABOR MARKET RESEARCH,
2 INFORMATION, AND LABOR EXCHANGE RE-
3 SEARCH PROGRAM.—

4 “(i) IN GENERAL.—Under the pro-
5 gram established under paragraph (1), the
6 Secretary shall award competitive grants to
7 States to enable such States to administer
8 labor market and labor exchange informa-
9 tion programs that include the implemen-
10 tation of the activities described in clause
11 (ii), in coordination with the one-stop deliv-
12 ery system.

13 “(ii) ACTIVITIES.—A State shall use
14 amounts awarded under a grant under this
15 subparagraph to provide funding to the
16 State agency that administers the Wagner-
17 Peyser Act and State unemployment com-
18 pensation programs to carry out the fol-
19 lowing activities using State agency merit
20 staff:

21 “(I) The identification of job
22 openings in the renewable energy and
23 energy efficiency sector.

1 “(II) The administration of skill
2 and aptitude testing and assessment
3 for workers.

4 “(III) The counseling, case man-
5 agement, and referral of qualified job
6 seekers to openings and training pro-
7 grams, including energy efficiency and
8 renewable energy training programs.

9 “(D) STATE ENERGY TRAINING PARTNER-
10 SHIP PROGRAM.—

11 “(i) IN GENERAL.—Under the pro-
12 gram established under paragraph (1), the
13 Secretary shall award competitive grants to
14 States to enable such States to administer
15 renewable energy and energy efficiency
16 workforce development programs that in-
17 clude the implementation of the activities
18 described in clause (ii).

19 “(ii) PARTNERSHIPS.—A State shall
20 use amounts awarded under a grant under
21 this subparagraph to award competitive
22 grants to eligible State Energy Sector
23 Partnerships to enable such Partnerships
24 to coordinate with existing apprenticeship
25 and labor management training programs

1 and implement training programs that lead
2 to the economic self-sufficiency of trainees.

3 “(iii) ELIGIBILITY.—To be eligible to
4 receive a grant under this subparagraph, a
5 State Energy Sector Partnership shall—

6 “(I) consist of non-profit organi-
7 zations that include equal participa-
8 tion from industry, including public or
9 private nonprofit employers, and labor
10 organizations, including joint labor-
11 management training programs, and
12 may include representatives from local
13 governments, the workforce invest-
14 ment system, including worker invest-
15 ment agency one-stop career centers,
16 community based organizations, com-
17 munity colleges, and other post-sec-
18 ondary institutions, small businesses,
19 cooperatives, State and local veterans
20 agencies, and veterans service organi-
21 zations;

22 “(II) demonstrate experience in
23 implementing and operating worker
24 skills training and education pro-
25 grams; and

1 “(III) demonstrate the ability to
2 identify and involve in training pro-
3 grams, target populations of workers
4 who would benefit from activities re-
5 lated to energy efficiency and renew-
6 able energy industries.

7 “(iv) PRIORITY.—In awarding grants
8 under this subparagraph, the Secretary
9 shall give priority to States that dem-
10 onstrate that activities under the grant—

11 “(I) meet national energy policies
12 associated with energy efficiency, re-
13 newable energy, and the reduction of
14 emissions of greenhouse gases;

15 “(II) meet State energy policies
16 associated with energy efficiency, re-
17 newable energy, and the reduction of
18 emissions of greenhouse gases; and

19 “(III) leverage additional public
20 and private resources to fund training
21 programs, including cash or in-kind
22 matches from participating employers.

23 “(v) COORDINATION.—A grantee
24 under this subparagraph shall coordinate
25 activities carried out under the grant with

1 existing other appropriate training pro-
2 grams, including apprenticeship and labor
3 management training programs, including
4 such activities referenced in subparagraph
5 (C)(ii), and implement training programs
6 that lead to the economic self-sufficiency of
7 trainees.

8 “(E) PATHWAYS OUT OF POVERTY DEM-
9 ONSTRATION PROGRAM.—

10 “(i) IN GENERAL.—Under the pro-
11 gram established under paragraph (1), the
12 Secretary shall award at least 10 competi-
13 tive grants to eligible entities to enable
14 such entities to carry out training that
15 leads to economic self-sufficiency. The Sec-
16 retary shall give priority to entities that
17 serve individuals in families with income of
18 less than 200 percent of the poverty
19 threshold (as determined by the Bureau of
20 the Census) or a self-sufficiency standard
21 for the local areas where the training is
22 conducted that specifies the income needs
23 of families, by family size, the number and
24 ages of children in the family, and sub-
25 State geographical considerations. Grants

1 shall be awards to ensure geographic diver-
2 sity.

3 “(ii) ELIGIBLE ENTITIES.—To be eli-
4 gible to receive a grant an entity shall be
5 a partnership that—

6 “(I) includes community-based
7 non-profit organizations, educational
8 institutions with expertise in serving
9 low-income adults or youth, public or
10 private employers from the industry
11 sectors described in paragraph
12 (1)(B)(ii), and labor organizations
13 representing workers in such industry
14 sectors;

15 “(II) demonstrates experience in
16 implementing and operating worker
17 skills training and education pro-
18 grams;

19 “(III) coordinates activities,
20 where appropriate, with the workforce
21 investment system; and

22 “(IV) demonstrates the ability to
23 recruit individuals for training and to
24 support such individuals to successful
25 completion in training programs car-

1 ried out under this grant, targeting
2 populations of workers who are or will
3 be engaged in activities related to en-
4 ergy efficiency and renewable energy
5 industries.

6 “(iii) PRIORITIES.—In awarding
7 grants under this paragraph, the Secretary
8 shall give priority to applicants that—

9 “(I) target programs to benefit
10 low-income workers, unemployed
11 youth and adults, high school drop-
12 outs, or other underserved sectors of
13 the workforce within areas of high
14 poverty;

15 “(II) ensure that supportive serv-
16 ices are integrated with education and
17 training, and delivered by organiza-
18 tions with direct access to and experi-
19 ence with targeted populations;

20 “(III) leverage additional public
21 and private resources to fund training
22 programs, including cash or in-kind
23 matches from participating employers;

24 “(IV) involve employers and
25 labor organizations in the determina-

tion of relevant skills and competencies and ensure that the certificates or credentials that result from the training are employer-recognized;

“(V) deliver courses at alternative times (such as evening and weekend programs) and locations most convenient and accessible to participants; and

“(VI) link adult remedial education with occupational skills training.

“(iv) DATA COLLECTION.—Grantees shall collect and report the following information:

“(I) The number of participants.

“(II) The demographic characteristics of participants, including race, gender, age, parenting status, participation in other Federal programs, education and literacy level at entry, significant barriers to employment (such as limited English proficiency, criminal record, addiction or mental

1 health problem requiring treatment,
2 or mental disability).

3 “(III) The services received by
4 participants, including training, edu-
5 cation, and supportive services.

6 “(IV) The amount of program
7 spending per participant.

8 “(V) Program completion rates.

9 “(VI) Factors determined as sig-
10 nificantly interfering with program
11 participation or completion.

12 “(VII) The rate of Job placement
13 and the rate of employment retention
14 after 1 year.

15 “(VIII) The average wage at
16 placement, including any benefits, and
17 the rate of average wage increase
18 after 1 year.

19 “(IX) Any post-employment sup-
20 portive services provided.

21 The Secretary shall assist grantees in the
22 collection of data under this clause by
23 making available, where practicable, low-
24 cost means of tracking the labor market
25 outcomes of participants, and by providing

1 standardized reporting forms, where appro-
2 priate.

3 “(3) ACTIVITIES.—

4 “(A) IN GENERAL.—Activities to be car-
5 ried out under a program authorized by sub-
6 paragraph (B), (D), or (E) of paragraph (2)
7 shall be coordinated with existing systems or
8 providers, as appropriate. Such activities may
9 include—

10 “(i) occupational skills training, in-
11 cluding curriculum development, on-the-job
12 training, and classroom training;

13 “(ii) safety and health training;

14 “(iii) the provision of basic skills, lit-
15 eracy, GED, English as a second language,
16 and job readiness training;

17 “(iv) individual referral and tuition
18 assistance for a community college training
19 program, or any training program leading
20 to an industry-recognized certificate;

21 “(v) internship programs in fields re-
22 lated to energy efficiency and renewable
23 energy;

24 “(vi) customized training in conjunc-
25 tion with an existing registered apprentice-

1 ship program or labor-management part-
2 nership;

3 “(vii) career ladder and upgrade
4 training;

5 “(viii) the implementation of transi-
6 tional jobs strategies; and

7 “(ix) the provision of supportive serv-
8 ices.

9 “(B) OUTREACH ACTIVITIES.—In addition
10 to the activities authorized under subparagraph
11 (A), activities authorized for programs under
12 subparagraph (E) of paragraph (2) may include
13 the provision of outreach, recruitment, career
14 guidance, and case management services.

15 “(4) WORKER PROTECTIONS AND NON-
16 DISCRIMINATION REQUIREMENTS.—

17 “(A) APPLICATION OF WIA.—The provi-
18 sions of sections 181 and 188 of the Workforce
19 Investment Act of 1998 (29 U.S.C. 2931 and
20 2938) shall apply to all programs carried out
21 with assistance under this subsection.

22 “(B) CONSULTATION WITH LABOR ORGANI-
23 ZATIONS.—If a labor organization represents a
24 substantial number of workers who are engaged
25 in similar work or training in an area that is

1 the same as the area that is proposed to be
2 funded under this Act, the labor organization
3 shall be provided an opportunity to be consulted
4 and to submit comments in regard to such a
5 proposal.

6 “(5) PERFORMANCE MEASURES.—

7 “(A) IN GENERAL.—The Secretary shall
8 negotiate and reach agreement with the eligible
9 entities that receive grants and assistance
10 under this section on performance measures for
11 the indicators of performance referred to in
12 subparagraphs (A) and (B) of section 136(b)(2)
13 that will be used to evaluate the performance of
14 the eligible entity in carrying out the activities
15 described in subsection (e)(2). Each State and
16 local performance measure shall consist of such
17 an indicator of performance, and a performance
18 level referred to in subparagraph (B).

19 “(B) PERFORMANCE LEVELS.—The Sec-
20 retary shall negotiate and reach agreement with
21 the eligible entity regarding the levels of per-
22 formance expected to be achieved by the eligible
23 entity on the indicators of performance.

24 “(6) REPORT.—

1 “(A) STATUS REPORT.—Not later than 18
2 months after the date of enactment of the
3 Green Jobs Act of 2007, the Secretary shall
4 transmit a report to Congress on the training
5 program established by this subsection. The re-
6 port shall include a description of the entities
7 receiving funding and the activities carried out
8 by such entities.

9 “(B) EVALUATION.—Not later than 3
10 years after the date of enactment of such Act,
11 the Secretary shall transmit to Congress an as-
12 sessment of such program and an evaluation of
13 the activities carried out by entities receiving
14 funding from such program.

15 “(7) DEFINITION.—As used in this subsection,
16 the term ‘renewable energy’ has the meaning given
17 such term in section 203(b)(2) of the Energy Policy
18 Act of 2005 (Public Law 109–58).

19 “(8) AUTHORIZATION OF APPROPRIATIONS.—
20 There is authorized to be appropriated to carry out
21 this subsection, \$125,000,000 for each fiscal years,
22 of which—

23 “(A) not to exceed 20 percent of the
24 amount appropriated in each such fiscal year
25 shall be made available for, and shall be equally

divided between, national labor market research and information under paragraph (2)(A) and State labor market information and labor exchange research under paragraph (2)(C), and not more than 2 percent of such amount shall be for the evaluation and report required under paragraph (4);

“(B) 20 percent shall be dedicated to Pathways Out of Poverty Demonstration Programs under paragraph (2)(E); and

“(C) the remainder shall be divided equally between National Energy Partnership Training Grants under paragraph (2)(B) and State energy training partnership grants under paragraph (2)(D).”.

TITLE II—INTERNATIONAL CLIMATE COOPERATION RE-ENGAGEMENT ACT OF 2007

SEC. 2001. SHORT TITLE.

This title may be cited as the “International Climate Cooperation Re-engagement Act of 2007”.

SEC. 2002. DEFINITIONS.

In this title:

(1) APPROPRIATE CONGRESSIONAL COMMITTEES.—The term “appropriate congressional com-

mittees” means the Committee on Foreign Affairs of the House of Representatives and the Committee on Foreign Relations of the Senate.

(2) CLEAN AND EFFICIENT ENERGY TECHNOLOGY.—The term “clean and efficient energy technology” means an energy supply or end-use technology—

(A) such as—

(i) solar technology;

(ii) wind technology;

(iii) geothermal technology;

(iv) hydroelectric technology; and

(v) carbon capture technology; and

(B) that, over its life cycle and compared to a similar technology already in commercial use—

(i) is reliable, affordable, economically viable, socially acceptable, and compatible with the needs and norms of the country involved;

(ii) results in—

(I) reduced emissions of greenhouse gases; or

(II) increased geological sequestration; and

1 (iii) may—

2 (I) substantially lower emissions
3 of air pollutants; or

4 (II) generate substantially small-
5 er or less hazardous quantities of solid
6 or liquid waste.

7 (3) GEOLOGICAL SEQUESTRATION.—The term
8 “geological sequestration” means the capture and
9 long-term storage in a geological formation of a
10 greenhouse gas from an energy producing facility,
11 which prevents the release of greenhouse gases into
12 the atmosphere.

13 (4) GREENHOUSE GAS.—The term “greenhouse
14 gas” means—

15 (A) carbon dioxide;

16 (B) methane;

17 (C) nitrous oxide;

18 (D) hydrofluorocarbons;

19 (E) perfluorocarbons; or

20 (F) sulfur hexafluoride.

21 **Subtitle A—United States Policy on**
22 **Global Climate Change**

23 **SEC. 2101. CONGRESSIONAL FINDINGS.**

24 Congress makes the following findings:

1 (1) There is a global scientific consensus, as es-
2 tablished by the Intergovernmental Panel on Climate
3 Change (IPCC) and confirmed by the National
4 Academy of Sciences, that the continued build-up of
5 anthropogenic greenhouse gases in the atmosphere
6 has been, and is now warming the earth and threat-
7 ens the stability of the global climate. By the esti-
8 mate of the IPCC, unmitigated global greenhouse
9 gas emissions could drive up global temperatures by
10 as much as 7 to 11 degrees Fahrenheit by 2100.

11 (2) Climate change is already having significant
12 impacts in certain regions of the world and on many
13 ecosystems, with poor populations being most vul-
14 nerable.

15 (3) Climate change is a global problem that can
16 only be managed by a coordinated global response
17 that reduces global emissions of greenhouse gases to
18 a level that stabilizes their concentration in the
19 Earth's atmosphere.

20 (4) The United Nations Framework Convention
21 on Climate Change (hereinafter in this section re-
22 ferred to as the "Convention") establishes a viable
23 foundation to construct a global regime to combat
24 global warming and manage its impacts.

1 (5) The United States, along with 189 other
2 countries, is a party to the Convention, agreed to in
3 New York on May 9, 1992, and entered into force
4 in 1994. The Convention's stated objective is "to
5 achieve stabilization of greenhouse gas concentra-
6 tions in the atmosphere at a level that would prevent
7 dangerous anthropogenic interference with the cli-
8 mate system".

9 (6) The Kyoto Protocol to the Convention was
10 adopted by the third Convention Conference of the
11 Parties (COP-3) in December 1997, in Kyoto,
12 Japan, and stipulated legally binding reductions in
13 greenhouse gas emissions at an average of 5.2 per-
14 cent below 1990 levels for industrialized countries,
15 but it did not specify policies for its implementation.
16 The Kyoto Protocol also did not stipulate binding re-
17 ductions in greenhouse gas emissions for rapidly in-
18 dustrializing countries such as China, India, and
19 Brazil.

20 (7) Before negotiations were completed on the
21 mechanisms for implementing Kyoto Protocol com-
22 mitments on greenhouse gas emissions, George W.
23 Bush took office as President of the United States,
24 and in March 2001, announced opposition to contin-
25 ued negotiations over implementation of the Pro-

1 tocol, stating that the Protocol was “fatally flawed”
2 from the Administration’s point of view.

3 (8) President Bush unveiled an “alternative”
4 strategy to the Kyoto Protocol for halting global
5 warming on February 14, 2002. The President’s
6 plan did not contain any international component to
7 amend or supplant the Kyoto Protocol or any kind
8 of blueprint for committing major developing econo-
9 mies such as China, India, and Brazil to reduce fu-
10 ture greenhouse gas emissions. The President’s plan
11 set a voluntary “greenhouse gas intensity” target for
12 the United States that specified an 18 percent re-
13 duction in “emissions intensity” by 2012. This re-
14 duction would allow actual emissions to increase by
15 at least 12 percent over the same period.

16 (9) On February 16, 2005, after Russia’s ratifi-
17 cation, the Kyoto Protocol entered into force. With
18 entry into force, the emissions targets of the Pro-
19 tocol became legally binding commitments for those
20 industrialized countries that ratified the Protocol.
21 Because the United States and Australia did not
22 ratify the Protocol, and because developing countries
23 are not subject to its limits, the Protocol currently
24 restricts the emissions of countries accounting for
25 only 32 percent of global greenhouse gas emissions.

1 (10) The Kyoto Protocol required that parties
2 to the Protocol begin negotiating in 2005 toward a
3 second round of commitments to begin after the ex-
4 piration of the first emissions budget period in 2012.
5 The eleventh Convention Conference of the Parties
6 (COP–11) in November and December 2005 in
7 Montreal, Canada launched the negotiations on the
8 second round of commitments by parties to the Pro-
9 tocol and initiated a dialogue (a “parallel process”)
10 under the Convention that engaged both the United
11 States and developing countries in discussions on fu-
12 ture efforts.

13 (11) At the twelfth Convention Conference of
14 the Parties (COP–12) in November 2006 in Nairobi,
15 Kenya, parties continued discussions on a second
16 round of commitments under the Kyoto Protocol as
17 a successor to the first commitment period (2008
18 through 2012) and, in the parallel process, discussed
19 enhanced cooperation under the Convention that
20 would engage countries that did not have commit-
21 ments under the Protocol.

22 (12) At a summit in Brussels, Belgium in
23 March 2007, the head of governments of the Euro-
24 pean Union committed its Member States to cut
25 greenhouse gas emissions 20 percent below 1990 lev-

1 els by 2020 and committed to move this target up
2 to 30 percent if the United States and other major
3 emitters joined the commitment.

4 (13) On April 17, 2007, the United Nations Se-
5 curity Council held its first ever “open meeting” on
6 the impact of climate change on international secu-
7 rity. British Foreign Secretary Margaret Beckett, in
8 her capacity as President of the Security Council,
9 declared in her opening statement that the Council
10 has a “security imperative” to tackle climate change
11 because it can exacerbate problems that cause con-
12 flicts and because it threatens the entire planet.
13 United Nations Secretary-General Ban Ki-moon told
14 the Council that “issues of energy and climate
15 change have implications for peace and security”.

16 (14) Working Group III of the IPCC met from
17 April 30 through May 4, 2007, in Bangkok, Thai-
18 land to assess technologies and policies needed to
19 avert dangerous climate change and to provide back-
20 ground for negotiations on a post-2012 climate
21 change regime. The draft report by the IPCC Work-
22 ing Group III concludes that by quickly adopting
23 technological options that are available or are being
24 developed, the global concentration of greenhouse
25 gases in the atmosphere can be stabilized at 450–

1 550 parts per million (ppm). The IPCC scientists
2 believe that a 450 to 550 ppm ceiling might limit
3 the global rise in temperatures to no more than 3.6
4 degrees Fahrenheit and avert impacts of escalating
5 scale, scope, and costs, potentially including the de-
6 stabilization of large polar ice sheets that could con-
7 tribute to long-term, catastrophic sea level rise at
8 higher temperatures.

9 (15) The United Nations Secretary-General
10 Ban Ki-moon has indicated that one of his top goals
11 is to forge a more comprehensive agreement under
12 the Convention to ensure there is no gap when the
13 first commitment period under the Kyoto Protocol
14 ends in 2012. In order to reach this goal, critical ne-
15 gotiations involving all of the major greenhouse gas
16 emitters, along with the vulnerable countries, must
17 be initiated immediately and be completed by 2009.
18 On May 1, 2007, the Secretary-General named three
19 Special Envoys on Climate Change to assist in “con-
20 sultations with Governments”. The Secretary-Gen-
21 eral will host a “high-level meeting” on climate
22 change at the United Nations General Assembly in
23 September 2007 to give “political direction” to the
24 thirteenth Convention Conference of the Parties

1 (COP–13) to take place in December 2007 in Bali,
2 Indonesia.

3 **SEC. 2102. CONGRESSIONAL STATEMENT OF POLICY.**

4 Congress declares the following to be the policy of the
5 United States:

6 (1) To promote United States and global secu-
7 rity through leadership in cooperation with other na-
8 tions of the global effort to reduce and stabilize
9 global greenhouse gas emissions and stabilize atmos-
10 pheric concentration of such gases. As such, the
11 United States will seek to obtain mitigation commit-
12 ments from all major greenhouse gas emitting coun-
13 tries under the institutional framework provided by
14 the United Nations Framework Convention on Cli-
15 mate Change (hereinafter in this section referred to
16 as the “Convention”).

17 (2) To facilitate progress in global negotiations
18 toward a comprehensive agreement under the Con-
19 vention, and in service of this goal, the United
20 States will, during the course of 2007, engage in
21 high level dialogue on climate change within the
22 Group of Eight (G–8), with the European Union,
23 with Japan and other industrialized countries, and
24 with China, India, Brazil, and other major devel-
25 oping countries. The United States will also partici-

1 pate in the initiative of the United Nations Sec-
2 retary-General to build consensus among govern-
3 ments on enhanced international cooperation on
4 these matters.

5 (3) To participate more actively and construc-
6 tively in the intergovernmental climate change proc-
7 ess, including at the thirteenth Convention Con-
8 ference of the Parties (COP-13) to take place in De-
9 cember 2007 in Bali, Indonesia. As such, at the
10 COP-13 meeting, the United States will be rep-
11 resented by a high-level delegation composed of cli-
12 mate experts and career foreign service officers with
13 extensive diplomatic experience, including experience
14 in multi-lateral negotiations, headed by the Sec-
15 retary of State, the Secretary's Deputy, or the Un-
16 dersecretary for Global Affairs of the Department of
17 State.

18 (4) To engage in serious discussion of possible
19 future commitments under the Convention. These
20 discussions will seek to develop a plan of action and
21 time-table with the goal of adopting a new inter-
22 national agreement under the Convention that stipu-
23 lates commitments from all major greenhouse gas
24 emitters, including the United States and other
25 countries listed in Annex 1 to the Convention,

1 China, India, and Brazil, at the fifteenth Convention
2 Conference of the Parties (COP–15) to take place in
3 2009. This process will seek as its objective that a
4 new instrument will come into force by the time the
5 first commitment period under the Kyoto Protocol
6 ends in 2012.

7 (5) To protect United States national and eco-
8 nomic interests and United States competitiveness in
9 all sectors by negotiating a new agreement under the
10 Convention that is cost effective, comprehensive,
11 flexible, and equitable. Such an agreement shall, at
12 a minimum—

13 (A) require binding mitigation commit-
14 ments from all major emitting countries based
15 on their level of development;

16 (B) provide for different forms of commit-
17 ments, including economy-wide emissions tar-
18 gets, policy-based commitments, sectoral agree-
19 ments, and no-regrets targets;

20 (C) increase cooperation on clean and effi-
21 cient energy technologies and practices;

22 (D) target all greenhouse gases, including
23 sources, sinks, and reservoirs of greenhouse
24 gases, and should expand the current scope of
25 the Kyoto Protocol and Convention to sectors

1 not covered, such as the international aviation
2 and maritime sectors;

3 (E) include mechanisms to harness mar-
4 ket-based solutions, building upon the joint im-
5 plementation, clean development mechanism,
6 and international emissions trading developed
7 under the Protocol;

8 (F) include incentives for sustainable for-
9 estry management that reflect the value of
10 avoided deforestation;

11 (G) address the need for adaptation, espe-
12 cially for the most vulnerable and poorest coun-
13 tries on the planet;

14 (H) consider the impact on United States
15 industry and contain effective mechanisms to
16 protect United States competitiveness; and

17 (I) include the perspectives and address
18 the concerns of impacted indigenous and tribal
19 populations.

20 (6) To seek international consensus on long-
21 term objectives including a target range for stabi-
22 lizing greenhouse gas concentrations. The target
23 range should reflect the consensus recommendations
24 of Intergovernmental Panel on Climate Change
25 (IPCC) scientists, who believe that concentrations of

1 greenhouse gases in the Earth’s atmosphere must be
2 stabilized at a level that would provide a reasonable
3 chance of limiting the rise in global temperatures to
4 a level that might avert the most dangerous impacts
5 of climate change.

6 **SEC. 2103. OFFICE ON GLOBAL CLIMATE CHANGE.**

7 (a) ESTABLISHMENT OF OFFICE.—There is estab-
8 lished within the Department of State an Office on Global
9 Climate Change (hereinafter in this section referred to as
10 the “Office”).

11 (b) HEAD OF OFFICE.—

12 (1) IN GENERAL.—The head of the Office shall
13 be the Ambassador-at-Large for Global Climate
14 Change (hereinafter in this section referred to as the
15 “Ambassador-at-Large”).

16 (2) APPOINTMENT.—The Ambassador-at-Large
17 shall be appointed by the President, by and with the
18 advice and consent of the Senate.

19 (c) DUTIES.—

20 (1) IN GENERAL.—The primary responsibility
21 of the Ambassador-at-Large shall be to advance the
22 goals of the United States with respect to reducing
23 the emissions of global greenhouse gases and ad-
24 dressing the challenges posed by global climate
25 change.

1 (2) ADVISORY ROLE.—The Ambassador-at-
2 Large—

3 (A) shall be a principal adviser to the
4 President and the Secretary of State on matters
5 relating to global climate change; and

6 (B) shall make recommendations to the
7 President and the Secretary of State on policies
8 of the United States Government with respect
9 to international cooperation on reducing the
10 emission of global greenhouse gases and ad-
11 dressing the challenges posed by global climate
12 change.

13 (3) DIPLOMATIC REPRESENTATION.—Subject to
14 the direction of the President and the Secretary of
15 State, the Ambassador-at-Large is authorized to
16 represent the United States in matters relating to
17 global climate change in—

18 (A) contacts with foreign governments,
19 intergovernmental organizations, and special-
20 ized agencies of the United Nations, the Orga-
21 nization on Security and Cooperation in Eu-
22 rope, and other international organizations of
23 which the United States is a member; and

24 (B) multilateral conferences and meetings
25 relating to global climate change.

1 (d) FUNDING.—The Secretary of State shall provide
 2 the Ambassador-at-Large with such funds as may be nec-
 3 essary for the hiring of staff for the Office, the conduct
 4 of investigations by the Office, and for necessary travel
 5 to carry out the provisions of this section.

6 (e) REPORT.—Not later than September 1 of each
 7 year, the Secretary of State, with the assistance of the
 8 Ambassador-at-Large, shall prepare and submit to the ap-
 9 propriate congressional committees a report on the strat-
 10 egy, policies, and actions of the United States for reducing
 11 the emissions of global greenhouse gases and addressing
 12 the challenges posed of global climate change.

13 **SEC. 2104. REPORT ON PROGRESS MADE IN PROMOTING**
 14 **TRANSPARENCY IN EXTRACTIVE INDUSTRIES**
 15 **RESOURCE PAYMENTS.**

16 (a) PURPOSE.—The purpose of this section is to—

17 (1) ensure greater United States energy secu-
 18 rity by combating corruption in the governments of
 19 foreign countries that receive revenues from the sale
 20 of their natural resources, and

21 (2) enhance the development of democracy and
 22 increase political and economic stability in such re-
 23 source-rich foreign countries.

24 (b) FINDINGS.—Congress makes the following find-
 25 ings:

1 (1) The United States is the world's largest
2 consumer of oil. The United States accounts for 25
3 percent of global daily oil demand—despite having
4 less than 3 percent of the world's proven reserves.

5 (2) 6 of the top 10 suppliers of United States
6 crude oil imports rank in the bottom third of the
7 world's most corrupt countries, according to Trans-
8 parency International.

9 (3) Corrupt and non-transparent foreign gov-
10 ernments have a much higher risk of instability and
11 violent unrest, often leading to disruptions of energy
12 supplies. In addition, the citizens of such countries
13 often remain impoverished despite significant re-
14 source wealth.

15 (4) Oil is a fungible commodity. Therefore sup-
16 ply disruptions due to political instability in other
17 parts of the world affect United States domestic
18 price and supply regardless of the source of supply.

19 (5) Transparency in extractive revenue trans-
20 actions is important to decreasing corruption and in-
21 creasing energy security.

22 (6) The Extractive Industries Transparency
23 Initiative (EITI) serves to improve investment cli-
24 mates through the audited disclosure of revenue pay-
25 ments.

1 (c) STATEMENT OF POLICY.—It is the policy of the
2 United States—

3 (1) to increase energy security by decreasing
4 energy reliance on corrupt foreign governments;

5 (2) to promote global energy security through
6 promotion of programs such as EITI that seek to in-
7 still transparency and accountability into extractive
8 industries resource payments.

9 (d) SENSE OF CONGRESS.—It is the sense of Con-
10 gress that the United States should further global energy
11 security and promote democratic development in resource-
12 rich foreign countries by—

13 (1) encouraging further participation in the Ex-
14 tractive Industries Transparency Initiative (EITI)
15 by eligible countries and companies;

16 (2) promoting the efficacy of the EITI program
17 by ensuring a robust and candid review mechanism;

18 (3) establishing a domestic reporting require-
19 ment for all companies that purchase natural re-
20 sources from or make payments to government offi-
21 cials or entities connected with the extraction of
22 such resources so that citizens can monitor expendi-
23 tures by government officials to ensure account-
24 ability for illicit diversion and wasteful use of reve-
25 nues received; and

1 (4) seeking to establish an international report-
2 ing requirement similar to the reporting requirement
3 described in paragraph (3) in order to ensure that
4 all international companies and foreign countries are
5 competing and cooperating on a level playing field.

6 (e) REPORT.—

7 (1) REPORT REQUIRED.—Not later than 180
8 days after the date of the enactment of this Act, and
9 annually thereafter, the Secretary of State shall sub-
10 mit to Congress a report on progress made in pro-
11 moting transparency in extractive industries re-
12 source payments.

13 (2) MATTERS TO BE INCLUDED.—The report
14 required by paragraph (1) shall include a detailed
15 description of United States participation in the Ex-
16 tractive Industries Transparency Initiative (EITI),
17 bilateral and multilateral diplomatic efforts to fur-
18 ther participation in the EITI, and other United
19 States initiatives to strengthen energy security, deter
20 energy kleptocracy, and promote transparency in the
21 extractive industries.

1 **Subtitle B—Assistance to Promote**
2 **Clean and Efficient Energy**
3 **Technologies in Foreign Coun-**
4 **tries**

5 **SEC. 2201. CONGRESSIONAL FINDINGS.**

6 Congress makes the following findings:

7 (1) Several provisions of the Energy Policy Act
8 of 1992 were designed to expand Federal programs
9 that support renewable energy and energy efficient
10 equipment exports and to broaden the portfolio of
11 programs to include training and technology transfer
12 activities that help promote development in less in-
13 dustrialized nations, expand global markets, and re-
14 duce greenhouse gas emissions. However, few of the
15 export-related provisions of the Energy Policy Act of
16 1992 were implemented due to a lack of Federal
17 funding.

18 (2) In 2000, Congress called for several United
19 States Government agencies to create an Inter-
20 agency Working Group to support a Clean Energy
21 Technology Exports Initiative to use the combined
22 resources of various agencies to promote the export
23 of clean energy technologies abroad. The Initiative
24 also suffered from low levels of Federal funding and
25 has not produced significant results.

1 (3) Large and emerging economies, such as
2 India and China, play significant roles in the global
3 energy security system as large consumers of energy
4 and should be included as member countries in the
5 International Energy Agency to strengthen the com-
6 mon interest of importers in encouraging trans-
7 parent energy markets and in planning for supply
8 disruptions.

9 (4) The challenge of energy security severely af-
10 fects developing countries where over 1.6 billion peo-
11 ple lack access to affordable energy services. In
12 these nations, a lack of transparency and account-
13 ability creates a climate of mistrust for investors; bi-
14 lateral and multilateral lending institutions do not
15 provide sufficient incentives to companies investing
16 in clean and efficient energy technologies; women
17 and children suffer disproportionately due to the
18 lack of energy services; inaccessibility of energy serv-
19 ices impedes other development programs in edu-
20 cation, health, agriculture, and the environment; and
21 dependence on imported fuels leaves countries vul-
22 nerable to supply disruptions and economic shocks.

23 (5) In addition to promoting the export of clean
24 energy technologies, large energy-consuming econo-
25 mies must also have appropriate incentive systems,

1 policy and regulatory frameworks, and investment
2 climates in place to accept and promote the adoption
3 of such technologies.

4 (6) More than \$16 trillion needs to be invested
5 in energy-supply infrastructure worldwide by 2030
6 to meet energy demand, and almost half of total en-
7 ergy investment will take place in developing coun-
8 tries, where production and demand are expected to
9 increase the most.

10 (7) Public and private sector capital will be
11 needed to fulfill future demand. The opportunity ex-
12 ists for public and private actors to coordinate ef-
13 forts and leverage resources to direct this investment
14 into technologies, practices, and services that pro-
15 mote energy efficiency, clean-energy production, and
16 a reduction in global greenhouse gas emissions.

17 (8) In attempting to address the global climate
18 change challenge, the United States Government re-
19 cently launched the Asia Pacific Partnership on
20 Clean Development and Climate, which is meant to
21 accelerate the development and deployment of clean
22 energy technologies. However, this Partnership oper-
23 ates in a non-binding framework that does not re-
24 quire any emissions reductions from the partner
25 countries.

1 **SEC. 2202. UNITED STATES ASSISTANCE FOR DEVELOPING**
2 **COUNTRIES.**

3 (a) ASSISTANCE AUTHORIZED.—The Administrator
4 of the United States Agency for International Develop-
5 ment shall support policies and programs in developing
6 countries that promote clean and efficient energy tech-
7 nologies—

8 (1) to produce the necessary market conditions
9 for the private sector delivery of energy and environ-
10 mental management services;

11 (2) to create an environment that is conducive
12 to accepting clean and efficient energy technologies
13 that support the overall purpose of reducing green-
14 house gas emissions, including—

15 (A) improving policy, legal, and regulatory
16 frameworks;

17 (B) increasing institutional abilities to pro-
18 vide energy and environmental management
19 services; and

20 (C) increasing public awareness and par-
21 ticipation in the decision-making of delivering
22 energy and environmental management services;
23 and

24 (3) to promote the use of American-made clean
25 and efficient energy technologies, products, and en-
26 ergy and environmental management services.

1 (b) REPORT.—The Administrator of the United
2 States Agency for International Development shall submit
3 to the appropriate committees an annual report on the im-
4 plementation of this section for each of the fiscal years
5 2008 through 2012.

6 (c) AUTHORIZATION OF APPROPRIATIONS.—To carry
7 out this section, there are authorized to be appropriated
8 to the Administrator of the United States Agency for
9 International Development \$200,000,000 for each of the
10 fiscal years 2008 through 2012.

11 **SEC. 2203. UNITED STATES EXPORTS AND OUTREACH PRO-**
12 **GRAMS FOR INDIA, CHINA, AND OTHER COUN-**
13 **TRIES.**

14 (a) ASSISTANCE AUTHORIZED.—The Secretary of
15 Commerce shall direct the United States and Foreign
16 Commercial Service to expand or create a corps of the
17 Foreign Commercial Service officers to promote United
18 States exports in clean and efficient energy technologies
19 and build the capacity of government officials in India,
20 China, and any other country the Secretary of Commerce
21 determines appropriate, to become more familiar with the
22 available technologies—

23 (1) by assigning or training Foreign Commer-
24 cial Service attachés, who have expertise in clean
25 and efficient energy technologies from the United

1 States, to embark on business development and out-
 2 reach efforts to such countries; and

3 (2) by deploying the attachés described in para-
 4 graph (1) to educate provincial, state, and local gov-
 5 ernment officials in such countries on the variety of
 6 United States-based technologies in clean and effi-
 7 cient energy technologies for the purposes of pro-
 8 moting United States exports and reducing global
 9 greenhouse gas emissions.

10 (b) REPORT.—The Secretary of Commerce shall sub-
 11 mit to the appropriate committees an annual report on
 12 the implementation of this section for each of the fiscal
 13 years 2008 through 2012.

14 (c) AUTHORIZATION OF APPROPRIATIONS.—To carry
 15 out this section, there are authorized to be appropriated
 16 to the Secretary of Commerce such sums as may be nec-
 17 essary for each of the fiscal years 2008 through 2012.

18 **SEC. 2204. UNITED STATES TRADE MISSIONS TO ENCOUR-**
 19 **AGE PRIVATE SECTOR TRADE AND INVEST-**
 20 **MENT.**

21 (a) ASSISTANCE AUTHORIZED.—The Secretary of
 22 Commerce shall direct the International Trade Adminis-
 23 tration to expand or create trade missions to and from
 24 the United States to encourage private sector trade and
 25 investment in clean and efficient energy technologies—

1 (1) by organizing and facilitating trade mis-
2 sions to foreign countries and by matching United
3 States private sector companies with opportunities in
4 foreign markets so that clean and efficient energy
5 technologies can help to combat increases in global
6 greenhouse gas emissions; and

7 (2) by creating reverse trade missions in which
8 the Department of Commerce facilitates the meeting
9 of foreign private and public sector organizations
10 with private sector companies in the United States
11 for the purpose of showcasing clean and efficient en-
12 ergy technologies in use or in development that could
13 be exported to other countries.

14 (b) REPORT.—The Secretary of Commerce shall sub-
15 mit to the appropriate committees an annual report on
16 the implementation of this section for each of the fiscal
17 years 2008 through 2012.

18 (c) AUTHORIZATION OF APPROPRIATIONS.—To carry
19 out this section, there are authorized to be appropriated
20 to the Secretary of Commerce such sums as may be nec-
21 essary for each of the fiscal years 2008 through 2012.

22 **SEC. 2205. ACTIONS BY OVERSEAS PRIVATE INVESTMENT**
23 **CORPORATION.**

24 (a) FINDINGS.—Congress finds the following:

1 (1) Many of the emerging markets within which
2 the Overseas Private Investment Corporation sup-
3 ports projects have immense energy needs and will
4 require significant investment in the energy sector in
5 the coming decades.

6 (2) The use, or lack of use, of clean and effi-
7 cient energy technologies can have a dramatic effect
8 on the rate of global greenhouse gas emissions from
9 emerging markets in the coming decades.

10 (b) SENSE OF CONGRESS.—It is the sense of Con-
11 gress that the Overseas Private Investment Corporation
12 should promote greater investment in clean and efficient
13 energy technologies by—

14 (1) proactively reaching out to United States
15 companies that are interested in investing in clean
16 and efficient energy technologies in countries that
17 are significant contributors to global greenhouse gas
18 emissions;

19 (2) giving preferential treatment to the evalua-
20 tion and awarding of projects that involve the invest-
21 ment or utilization of clean and efficient energy
22 technologies; and

23 (3) providing greater flexibility in supporting
24 projects that involve the investment or utilization of

1 clean and efficient energy technologies, including fi-
2 nancing, insurance, and other assistance.

3 (c) REPORT.—The Overseas Private Investment Cor-
4 poration shall include in its annual report required under
5 section 240A of the Foreign Assistance Act of 1961 (22
6 U.S.C. 2200a)—

7 (1) a description of the activities carried out to
8 implement this section; or

9 (2) if the Corporation did not carry out any ac-
10 tivities to implement this section, an explanation of
11 the reasons therefor.

12 **SEC. 2206. ACTIONS BY UNITED STATES TRADE AND DEVEL-**
13 **OPMENT AGENCY.**

14 (a) ASSISTANCE AUTHORIZED.—The Director of the
15 Trade and Development Agency shall establish or support
16 policies that—

17 (1) proactively seek opportunities to fund
18 projects that involve the utilization of clean and effi-
19 cient energy technologies, including in trade capacity
20 building and capital investment projects;

21 (2) give preferential treatment to the evaluation
22 and awarding of projects that involve the utilization
23 of clean and efficient energy technologies, particu-
24 larly to countries that have the potential for signifi-
25 cant reduction in greenhouse gas emissions; and

1 (3) recruit and retain individuals with appro-
2 priate expertise in clean, renewable, and efficient en-
3 ergy technologies to identify and evaluate opportuni-
4 ties for projects that involve clean and efficient en-
5 ergy technologies and services.

6 (b) REPORT.—The President shall include in the an-
7 nual report on the activities of the Trade and Development
8 Agency required under section 661(d) of the Foreign As-
9 sistance Act of 1961 (22 U.S.C. 2421(d)) a description
10 of the activities carried out to implement this section.

11 **SEC. 2207. GLOBAL CLIMATE CHANGE EXCHANGE PRO-**
12 **GRAM.**

13 (a) PROGRAM AUTHORIZED.—The Secretary of State
14 is authorized to establish a program to strengthen re-
15 search, educational exchange, and international coopera-
16 tion with the aim of reducing global greenhouse gas emis-
17 sions and addressing the challenges posed by global cli-
18 mate change. The program authorized by this subsection
19 shall be carried out pursuant to the authorities of the Mu-
20 tual Educational and Cultural Exchange Act of 1961 (22
21 U.S.C. 2451 et seq.) and may be referred to as the “Glob-
22 al Climate Change Exchange Program”.

23 (b) ELEMENTS.—The program authorized by sub-
24 section (a) shall contain the following elements:

1 (1) The financing of studies, research, instruc-
2 tion, and other educational activities dedicated to re-
3 ducing carbon emissions and addressing the chal-
4 lenge of global climate change—

5 (A) by or to United States citizens and na-
6 tionals in foreign universities, governments, or-
7 ganizations, companies, or other institutions;
8 and

9 (B) by or to citizens and nationals of for-
10 eign countries in United States universities,
11 governments, organizations, companies, or other
12 institutions.

13 (2) The financing of visits and exchanges be-
14 tween the United States and other countries of stu-
15 dents, trainees, teachers, instructors, professors, re-
16 searchers, and other persons who study, teach, and
17 conduct research in subjects such as the physical
18 sciences, environmental science, public policy, eco-
19 nomics, urban planning, and other subjects and
20 focus on reducing greenhouse gas emissions and ad-
21 dressing the challenges posed by global climate
22 change.

23 (c) ACCESS.—The Secretary of State shall ensure
24 that the program authorized by subsection (a) is available
25 to—

1 (1) historically Black colleges and universities
2 that are part B institutions (as such term is defined
3 in section 322(2) of the Higher Education Act of
4 1965 (20 U.S.C. 1061(2))), Hispanic-serving institu-
5 tions (as such term is defined in section 502(5) of
6 such Act (20 U.S.C. 1101a(5))), Tribal Colleges or
7 Universities (as such term is defined in section 316
8 of such Act (20 U.S.C. 1059e)), and other minority
9 institutions (as such term is defined in section
10 365(3) of such Act (20 U.S.C. 1067k(3))), and to
11 the students, faculty, and researchers at such col-
12 leges, universities, and institutions; and

13 (2) small business concerns owned and con-
14 trolled by socially and economically disadvantaged
15 individuals, and small business concerns owned and
16 controlled by women (as such terms are defined in
17 section 8(d)(3) of the Small Business Act (15
18 U.S.C. 637(d)(3))).

19 (d) REPORT.—The Secretary of State shall transmit
20 to the appropriate committees an annual report on the im-
21 plementation of this section for each of the fiscal years
22 2008 through 2012.

23 (e) AUTHORIZATION OF APPROPRIATIONS.—To carry
24 out this section, there are authorized to be appropriated

1 to the Secretary of State \$3,000,000 for each of the fiscal
2 years 2008 through 2012.

3 **SEC. 2208. INTERAGENCY WORKING GROUP TO SUPPORT A**
4 **CLEAN ENERGY TECHNOLOGY EXPORTS INI-**
5 **TIATIVE.**

6 (a) ASSISTANCE AUTHORIZED.—The President shall
7 provide assistance to the Interagency Working Group to
8 support a Clean Energy Technology Exports Initiative—

9 (1) to improve the ability of the United States
10 to respond to international competition by leveraging
11 the resources of Federal departments and agencies
12 effectively and efficiently and by raising policy issues
13 that may hamper the export of United States clean
14 energy technologies abroad;

15 (2) to fulfill, as appropriate, the mission and
16 objectives as noted in the report entitled, Five-Year
17 Strategic Plan of the Clean Energy Technology Ex-
18 ports Initiative, submitted to Congress in October
19 2002; and

20 (3) to raise the importance and level of over-
21 sight of the Interagency Working Group to the
22 heads of the Federal departments and agencies that
23 are participating in the Interagency Working Group.

24 (b) REPORT.—The Administrator of the United
25 States Agency for International Development, the Sec-

1 retary of Commerce, and the Secretary of Energy shall
2 jointly submit to the appropriate committees an annual
3 report on the implementation of this section for each of
4 the fiscal years 2008 through 2012.

5 (c) AUTHORIZATION OF APPROPRIATIONS.—To carry
6 out this section, there are authorized to appropriated to
7 the President \$5,000,000 for each of the fiscal years 2008
8 through 2012.

9 **SEC. 2209. REPORT ON IMPACT OF GLOBAL CLIMATE**
10 **CHANGE ON DEVELOPING COUNTRIES.**

11 (a) REPORT REQUIRED.—Not later than 180 days
12 after the date of the enactment of this Act, the Secretary
13 of State, in consultation with the Administrator of the
14 United States Agency for International Development, the
15 Administrator of the Environmental Protection Agency,
16 and the heads of other appropriate Federal departments
17 and agencies, shall submit to the appropriate congres-
18 sional committees a report on the impact of global climate
19 change on developing countries.

20 (b) MATTERS TO BE INCLUDED.—The report re-
21 quired by subsection (a) shall include—

22 (1) an assessment of the current and antici-
23 pated needs of developing countries in adapting to
24 the impact of global climate change; and

1 (2) a strategy to address the current and antici-
2 pated needs of developing countries in adapting to
3 the impact of global climate change, including the
4 provision of United States assistance to developing
5 countries, and an identification of existing funding
6 sources and a description of new funding sources
7 that will be required specifically for such purposes.

8 **Subtitle C—International Clean**
9 **Energy Foundation**

10 **SEC. 2301. DEFINITIONS.**

11 In this subtitle:

12 (1) BOARD.—The term “Board” means the
13 Board of Directors of the Foundation established
14 pursuant to section 2302(c).

15 (2) CHIEF EXECUTIVE OFFICER.—The term
16 “Chief Executive Officer” means the chief executive
17 officer of the Foundation appointed pursuant to sec-
18 tion 2302(b).

19 (3) FOUNDATION.—The term “Foundation”
20 means the International Clean Energy Foundation
21 established by section 2302(a).

22 **SEC. 2302. ESTABLISHMENT AND MANAGEMENT OF FOUN-**
23 **DATION.**

24 (a) ESTABLISHMENT.—

1 (1) IN GENERAL.—There is established in the
2 executive branch a foundation to be known as the
3 “International Clean Energy Foundation” that shall
4 be responsible for carrying out the provisions of this
5 subtitle. The Foundation shall be a government cor-
6 poration, as defined in section 103 of title 5, United
7 States Code.

8 (2) BOARD OF DIRECTORS.—The Foundation
9 shall be governed by a Board of Directors chaired by
10 the Secretary of State (or the Secretary’s designee)
11 in accordance with subsection (d).

12 (3) INTENT OF CONGRESS.—It is the intent of
13 Congress, in establishing the structure of the Foun-
14 dation set forth in this subsection, to create an enti-
15 ty that serves the long-term foreign policy and en-
16 ergy security goals of reducing global greenhouse gas
17 emissions.

18 (b) CHIEF EXECUTIVE OFFICER.—

19 (1) IN GENERAL.—There shall be in the Foun-
20 dation a Chief Executive Officer who shall be re-
21 sponsible for the management of the Foundation.

22 (2) APPOINTMENT.—The Chief Executive Offi-
23 cer shall be appointed by the Board, with the advice
24 and consent of the Senate, and shall be a recognized
25 leader in clean and efficient energy technologies and

1 climate change and shall have experience in energy
2 security, business, or foreign policy, chosen on the
3 basis of a rigorous search.

4 (3) RELATIONSHIP TO BOARD.—The Chief Ex-
5 ecutive Officer shall report to, and be under the di-
6 rect authority of, the Board.

7 (4) COMPENSATION AND RANK.—

8 (A) IN GENERAL.—The Chief Executive
9 Officer shall be compensated at the rate pro-
10 vided for level III of the Executive Schedule
11 under section 5314 of title 5, United States
12 Code.

13 (B) AMENDMENT.—Section 5314 of title
14 5, United States Code, is amended by adding at
15 the end the following:

16 “Chief Executive Officer, International Clean En-
17 ergy Foundation.”.

18 (C) AUTHORITIES AND DUTIES.—The
19 Chief Executive Officer shall be responsible for
20 the management of the Foundation and shall
21 exercise the powers and discharge the duties of
22 the Foundation.

23 (D) AUTHORITY TO APPOINT OFFICERS.—
24 In consultation and with approval of the Board,

1 the Chief Executive Officer shall appoint all of-
2 ficers of the Foundation.

3 (c) BOARD OF DIRECTORS.—

4 (1) ESTABLISHMENT.—There shall be in the
5 Foundation a Board of Directors.

6 (2) DUTIES.—The Board shall perform the
7 functions specified to be carried out by the Board in
8 this subtitle and may prescribe, amend, and repeal
9 bylaws, rules, regulations, and procedures governing
10 the manner in which the business of the Foundation
11 may be conducted and in which the powers granted
12 to it by law may be exercised.

13 (3) MEMBERSHIP.—The Board shall consist
14 of—

15 (A) the Secretary of State (or the Sec-
16 retary's designee), the Secretary of Energy (or
17 the Secretary's designee), and the Adminis-
18 trator of the United States Agency for Inter-
19 national Development (or the Administrator's
20 designee); and

21 (B) four other individuals with relevant ex-
22 perience in matters relating to energy security
23 (such as individuals who represent institutions
24 of energy policy, business organizations, foreign
25 policy organizations, or other relevant organiza-

1 tions) who shall be appointed by the President,
2 by and with the advice and consent of the Sen-
3 ate, of which—

4 (i) one individual shall be appointed
5 from among a list of individuals submitted
6 by the majority leader of the House of
7 Representatives;

8 (ii) one individual shall be appointed
9 from among a list of individuals submitted
10 by the minority leader of the House of
11 Representatives;

12 (iii) one individual shall be appointed
13 from among a list of individuals submitted
14 by the majority leader of the Senate; and

15 (iv) one individual shall be appointed
16 from among a list of individuals submitted
17 by the minority leader of the Senate.

18 (4) CHIEF EXECUTIVE OFFICER.—The Chief
19 Executive Officer of the Foundation shall serve as a
20 nonvoting, ex officio member of the Board.

21 (5) TERMS.—

22 (A) OFFICERS OF THE FEDERAL GOVERN-
23 MENT.—Each member of the Board described
24 in paragraph (3)(A) shall serve for a term that
25 is concurrent with the term of service of the in-

1 dividual’s position as an officer within the other
2 Federal department or agency.

3 (B) OTHER MEMBERS.—Each member of
4 the Board described in paragraph (3)(B) shall
5 be appointed for a term of 3 years and may be
6 reappointed for a term of an additional 3 years.

7 (C) VACANCIES.—A vacancy in the Board
8 shall be filled in the manner in which the origi-
9 nal appointment was made.

10 (D) ACTING MEMBERS.—A vacancy in the
11 Board may be filled with an appointment of an
12 acting member by the Chairperson of the Board
13 for up to 1 year while a nominee is named and
14 awaits confirmation in accordance with para-
15 graph (3)(B).

16 (6) CHAIRPERSON.—There shall be a Chair-
17 person of the Board. The Secretary of State (or the
18 Secretary’s designee) shall serve as the Chairperson.

19 (7) QUORUM.—A majority of the members of
20 the Board described in paragraph (3) shall con-
21 stitute a quorum, which, except with respect to a
22 meeting of the Board during the 135-day period be-
23 ginning on the date of the enactment of this Act,
24 shall include at least 1 member of the Board de-
25 scribed in paragraph (3)(B).

1 (8) MEETINGS.—The Board shall meet at the
2 call of the Chairperson, who shall call a meeting no
3 less than once a year.

4 (9) COMPENSATION.—

5 (A) OFFICERS OF THE FEDERAL GOVERN-
6 MENT.—

7 (i) IN GENERAL.—A member of the
8 Board described in paragraph (3)(A) may
9 not receive additional pay, allowances, or
10 benefits by reason of the member's service
11 on the Board.

12 (ii) TRAVEL EXPENSES.—Each such
13 member of the Board shall receive travel
14 expenses, including per diem in lieu of sub-
15 sistence, in accordance with applicable pro-
16 visions under subchapter I of chapter 57 of
17 title 5, United States Code.

18 (B) OTHER MEMBERS.—

19 (i) IN GENERAL.—Except as provided
20 in clause (ii), a member of the Board de-
21 scribed in paragraph (3)(B)—

22 (I) shall be paid compensation
23 out of funds made available for the
24 purposes of this subtitle at the daily
25 equivalent of the highest rate payable

1 under section 5332 of title 5, United
2 States Code, for each day (including
3 travel time) during which the member
4 is engaged in the actual performance
5 of duties as a member of the Board;
6 and

7 (II) while away from the mem-
8 ber's home or regular place of busi-
9 ness on necessary travel in the actual
10 performance of duties as a member of
11 the Board, shall be paid per diem,
12 travel, and transportation expenses in
13 the same manner as is provided under
14 subchapter I of chapter 57 of title 5,
15 United States Code.

16 (ii) LIMITATION.—A member of the
17 Board may not be paid compensation
18 under clause (i)(II) for more than 90 days
19 in any calendar year.

20 **SEC. 2303. DUTIES OF FOUNDATION.**

21 The Foundation shall—

22 (1) use the funds authorized by this subtitle to
23 make grants to promote projects outside of the
24 United States that serve as models of how to signifi-
25 cantly reduce the emissions of global greenhouse

1 gases through clean and efficient energy tech-
2 nologies, processes, and services;

3 (2) seek contributions from foreign govern-
4 ments, especially those rich in energy resources such
5 as member countries of the Organization of the Pe-
6 troleum Exporting Countries, and private organiza-
7 tions to supplement funds made available under this
8 subtitle;

9 (3) harness global expertise through collabo-
10 rative partnerships with foreign governments and
11 domestic and foreign private actors, including non-
12 governmental organizations and private sector com-
13 panies, by leveraging public and private capital,
14 technology, expertise, and services towards innova-
15 tive models that can be instituted to reduce global
16 greenhouse gas emissions;

17 (4) create a repository of information on best
18 practices and lessons learned on the utilization and
19 implementation of clean and efficient energy tech-
20 nologies and processes to be used for future initia-
21 tives to tackle the climate change crisis;

22 (5) be committed to minimizing administrative
23 costs and to maximizing the availability of funds for
24 grants under this subtitle; and

1 (6) promote the use of American-made clean
2 and efficient energy technologies, processes, and
3 services.

4 **SEC. 2304. ANNUAL REPORT.**

5 (a) REPORT REQUIRED.—Not later than March 31,
6 2008, and each March 31 thereafter, the Foundation shall
7 submit to the appropriate congressional committees a re-
8 port on the implementation of this subtitle during the
9 prior fiscal year.

10 (b) CONTENTS.—The report required by subsection
11 (a) shall include—

12 (1) the total financial resources available to the
13 Foundation during the year, including appropriated
14 funds, the value and source of any gifts or donations
15 accepted pursuant to section 2305(a)(6), and any
16 other resources;

17 (2) a description of the Board’s policy priorities
18 for the year and the basis upon which competitive
19 grant proposals were solicited and awarded to non-
20 governmental institutions and other organizations;

21 (3) a list of grants made to nongovernmental
22 institutions and other organizations that includes
23 the identity of the institutional recipient, the dollar
24 amount, and the results of the program; and

1 (4) the total administrative and operating ex-
2 penses of the Foundation for the year, as well as
3 specific information on—

4 (A) the number of Foundation employees
5 and the cost of compensation for Board mem-
6 bers, Foundation employees, and personal serv-
7 ice contractors;

8 (B) costs associated with securing the use
9 of real property for carrying out the functions
10 of the Foundation;

11 (C) total travel expenses incurred by Board
12 members and Foundation employees in connec-
13 tion with Foundation activities; and

14 (D) total representational expenses.

15 **SEC. 2305. POWERS OF THE FOUNDATION; RELATED PROVI-**
16 **SIONS.**

17 (a) **POWERS.**—The Foundation—

18 (1) shall have perpetual succession unless dis-
19 solved by a law enacted after the date of the enact-
20 ment of this Act;

21 (2) may adopt, alter, and use a seal, which shall
22 be judicially noticed;

23 (3) may make and perform such contracts,
24 grants, and other agreements with any person or
25 government however designated and wherever situ-

1 ated, as may be necessary for carrying out the func-
2 tions of the Foundation;

3 (4) may determine and prescribe the manner in
4 which its obligations shall be incurred and its ex-
5 penses allowed and paid, including expenses for rep-
6 resentation;

7 (5) may lease, purchase, or otherwise acquire,
8 improve, and use such real property wherever situ-
9 ated, as may be necessary for carrying out the func-
10 tions of the Foundation;

11 (6) may accept money, funds, services, or prop-
12 erty (real, personal, or mixed), tangible or intan-
13 gible, made available by gift, bequest grant, or oth-
14 erwise for the purpose of carrying out the provisions
15 of this title from domestic or foreign private individ-
16 uals, charities, nongovernmental organizations, cor-
17 porations, or governments;

18 (7) may use the United States mails in the
19 same manner and on the same conditions as the ex-
20 ecutive departments;

21 (8) may contract with individuals for personal
22 services, who shall not be considered Federal em-
23 ployees for any provision of law administered by the
24 Office of Personnel Management;

1 (9) may hire or obtain passenger motor vehi-
2 cles; and

3 (10) shall have such other powers as may be
4 necessary and incident to carrying out this subtitle.

5 (b) PRINCIPAL OFFICE.—The Foundation shall
6 maintain its principal office in the metropolitan area of
7 Washington, District of Columbia.

8 (c) APPLICABILITY OF GOVERNMENT CORPORATION
9 CONTROL ACT.—

10 (1) IN GENERAL.—The Foundation shall be
11 subject to chapter 91 of subtitle VI of title 31,
12 United States Code, except that the Foundation
13 shall not be authorized to issue obligations or offer
14 obligations to the public.

15 (2) CONFORMING AMENDMENT.—Section
16 9101(3) of title 31, United States Code, is amended
17 by adding at the end the following:

18 “(R) the International Clean Energy
19 Foundation.”.

20 (d) INSPECTOR GENERAL.—

21 (1) IN GENERAL.—The Inspector General of
22 the Department of State shall serve as Inspector
23 General of the Foundation, and, in acting in such
24 capacity, may conduct reviews, investigations, and

1 inspections of all aspects of the operations and ac-
2 tivities of the Foundation.

3 (2) AUTHORITY OF THE BOARD.—In carrying
4 out the responsibilities under this subsection, the In-
5 spector General shall report to and be under the
6 general supervision of the Board.

7 (3) REIMBURSEMENT AND AUTHORIZATION OF
8 SERVICES.—

9 (A) REIMBURSEMENT.—The Foundation
10 shall reimburse the Department of State for all
11 expenses incurred by the Inspector General in
12 connection with the Inspector General's respon-
13 sibilities under this subsection.

14 (B) AUTHORIZATION FOR SERVICES.—Of
15 the amount authorized to be appropriated
16 under section 2307(a) for a fiscal year, up to
17 \$500,000 is authorized to be made available to
18 the Inspector General of the Department of
19 State to conduct reviews, investigations, and in-
20 spections of operations and activities of the
21 Foundation.

22 **SEC. 2306. GENERAL PERSONNEL AUTHORITIES.**

23 (a) DETAIL OF PERSONNEL.—Upon request of the
24 Chief Executive Officer, the head of an agency may detail
25 any employee of such agency to the Foundation on a reim-

1 bursable basis. Any employee so detailed remains, for the
2 purpose of preserving such employee's allowances, privi-
3 leges, rights, seniority, and other benefits, an employee of
4 the agency from which detailed.

5 (b) REEMPLOYMENT RIGHTS.—

6 (1) IN GENERAL.—An employee of an agency
7 who is serving under a career or career conditional
8 appointment (or the equivalent), and who, with the
9 consent of the head of such agency, transfers to the
10 Foundation, is entitled to be reemployed in such em-
11 ployee's former position or a position of like senior-
12 ity, status, and pay in such agency, if such em-
13 ployee—

14 (A) is separated from the Foundation for
15 any reason, other than misconduct, neglect of
16 duty, or malfeasance; and

17 (B) applies for reemployment not later
18 than 90 days after the date of separation from
19 the Foundation.

20 (2) SPECIFIC RIGHTS.—An employee who satis-
21 fies paragraph (1) is entitled to be reemployed (in
22 accordance with such paragraph) within 30 days
23 after applying for reemployment and, on reemploy-
24 ment, is entitled to at least the rate of basic pay to

1 which such employee would have been entitled had
2 such employee never transferred.

3 (c) HIRING AUTHORITY.—Of persons employed by
4 the Foundation, no more than 30 persons may be ap-
5 pointed, compensated, or removed without regard to the
6 civil service laws and regulations.

7 (d) BASIC PAY.—The Chief Executive Officer may fix
8 the rate of basic pay of employees of the Foundation with-
9 out regard to the provisions of chapter 51 of title 5,
10 United States Code (relating to the classification of posi-
11 tions), subchapter III of chapter 53 of such title (relating
12 to General Schedule pay rates), except that no employee
13 of the Foundation may receive a rate of basic pay that
14 exceeds the rate for level IV of the Executive Schedule
15 under section 5315 of such title.

16 (e) DEFINITIONS.—In this section—

17 (1) the term “agency” means an executive
18 agency, as defined by section 105 of title 5, United
19 States Code; and

20 (2) the term “detail” means the assignment or
21 loan of an employee, without a change of position,
22 from the agency by which such employee is employed
23 to the Foundation.

1 **SEC. 2307. AUTHORIZATION OF APPROPRIATIONS.**

2 (a) AUTHORIZATION OF APPROPRIATIONS.—To carry
3 out this subtitle, there are authorized to be appropriated
4 \$20,000,000 for each of the fiscal years 2008 through
5 2012.

6 (b) ALLOCATION OF FUNDS.—

7 (1) IN GENERAL.—The Foundation may allo-
8 cate or transfer to any agency of the United States
9 Government any of the funds available for carrying
10 out this subtitle. Such funds shall be available for
11 obligation and expenditure for the purposes for
12 which the funds were authorized, in accordance with
13 authority granted in this subtitle or under authority
14 governing the activities of the United States Govern-
15 ment agency to which such funds are allocated or
16 transferred.

17 (2) NOTIFICATION.—The Foundation shall no-
18 tify the appropriate congressional committees not
19 less than 15 days prior to an allocation or transfer
20 of funds pursuant to paragraph (1).

21 **TITLE III—SMALL ENERGY**
22 **EFFICIENT BUSINESSES**

23 **SEC. 3001. SHORT TITLE.**

24 This title may be cited as the “Small Energy Effi-
25 cient Businesses Act”.

1 **SEC. 3002. FINDINGS.**

2 Congress finds the following:

3 (1) Energy efficiency is in our national interest
4 for our long term economic well being, for the health
5 and safety of our citizens and the world, and for our
6 independence and security.

7 (2) Small businesses are more efficient, nimble,
8 and innovative than large businesses and therefore
9 more likely to integrate and benefit from energy effi-
10 cient technology advances and upgrades, but they
11 are less likely to have the capital to institute these
12 advances quickly.

13 (3) The majority of businesses (two-thirds) say
14 they have been unable to invest in comprehensive en-
15 ergy efficiency programs for their businesses thus
16 far, though they know of them and believe they are
17 effective.

18 (4) A pilot program has demonstrated that in-
19 dividualized counseling and training combined with
20 loan and grant availability and other incentives are
21 very popular and effective in helping small busi-
22 nesses learn about and adopt energy conservation
23 methods.

24 (5) The energy saving benefit of such programs,
25 if they can be implemented on a national basis,

1 would contribute significantly to our energy inde-
2 pendence and security.

3 (6) New and emerging technologies are on the
4 rise, and small businesses are leading the way, for
5 example the vast majority of renewable fuels pro-
6 ducers, such as biodiesel and ethanol, are small busi-
7 nesses.

8 (7) Small businesses currently use almost half
9 of the Nation's business related energy consumption
10 and employ half of the Nation's workforce, yet the
11 Energy Star program, the lead Federal energy effi-
12 ciency program allocates less than 2 percent of its
13 resources to its small business program and should
14 allocate more to educate small businesses.

15 (8) Therefore, it is in the national interest for
16 the Federal Government to invest in incentives in
17 the form of improved loan terms, additional invest-
18 ment inducements, and expert counseling and infor-
19 mation to assist small businesses to develop, invest
20 in, and purchase energy efficient buildings, equip-
21 ment, fixtures, and other technology.

1 **SEC. 3003. LARGER 504 LOAN LIMITS TO HELP BUSINESS**
 2 **DEVELOP ENERGY EFFICIENT TECH-**
 3 **NOLOGIES AND PURCHASES.**

4 (a) **ELIGIBILITY FOR ENERGY EFFICIENCY**
 5 **PROJECTS.**—Section 501(d)(3) of the Small Business In-
 6 vestment Act of 1958 (15 U.S.C. 695(d)(3)) is amended—

7 (1) in subparagraph (G) by striking “or” at the
 8 end;

9 (2) in subparagraph (H) by striking the period
 10 at the end and inserting a comma; and

11 (3) by inserting after subparagraph (H) the fol-
 12 lowing:

13 “(I) reduction of energy consumption by at
 14 least 10 percent,

15 “(J) increased use of sustainable design or
 16 low-impact design to produce buildings that re-
 17 duce the use of non-renewable resources, mini-
 18 mize environmental impact, and relate people
 19 with the natural environment, or

20 “(K) plant, equipment and process up-
 21 grades of renewable energy sources such as
 22 micropower or renewable fuels producers includ-
 23 ing biodiesel and ethanol producers.”.

24 (b) **LOANS FOR PLANT PROJECTS USED FOR EN-**
 25 **ERGY-EFFICIENT PURPOSES.**—Section 502(2)(A) of the

1 Small Business Investment Act of 1958 (15 U.S.C.
2 696(2)(A)) is amended—

3 (1) in clause (ii) by striking “and” at the end;

4 (2) in clause (iii) by striking the period at the
5 end and inserting a semicolon; and

6 (3) by adding at the end the following new
7 clauses:

8 “(iv) \$4,000,000 for each project that
9 reduces the borrower’s energy consumption
10 by at least 10 percent; and

11 “(v) \$4,000,000 for each project that
12 generates renewable energy or renewable
13 fuels, such as biodiesel or ethanol produc-
14 tion.”.

15 **SEC. 3004. REDUCED 7(a) FEES AND HIGHER LOAN GUARAN-**
16 **TEES FOR PURCHASE OF ENERGY EFFICIENT**
17 **TECHNOLOGIES.**

18 Section 7(a) of the Small Business Act (15 U.S.C.
19 636(a)) is amended by adding at the end the following:

20 “(35) LOANS FOR ENERGY EFFICIENT TECH-
21 NOLOGIES.—The Administrator shall carry out a
22 program for loans the proceeds of which are used to
23 purchase energy efficient equipment or fixtures or to
24 reduce the energy consumption of the borrower, in-
25 cluding, but not limited to, renewable fuels and en-

1 ergy products such as biodiesel and ethanol, by 10
 2 percent or more. For a loan made under this para-
 3 graph, the following shall apply:

4 “(A) The loan shall include the participa-
 5 tion by the Administration equal to 90 percent
 6 of the balance of the financing outstanding at
 7 the time of disbursement.

8 “(B) The fees on the loan under para-
 9 graphs (18) and (23) shall be reduced by half.”.

10 **SEC. 3005. SMALL BUSINESS SUSTAINABILITY INITIATIVE.**

11 Section 21 of the Small Business Act (15 U.S.C. 648)
 12 is amended by adding at the end the following:

13 “(n) SMALL BUSINESS SUSTAINABILITY INITIA-
 14 TIVE.—

15 “(1) IN GENERAL.—A Small Business Develop-
 16 ment Center may apply for an additional grant to
 17 carry out a small business sustainability initiative
 18 program.

19 “(2) ELEMENTS OF PROGRAM.—Under a pro-
 20 gram under paragraph (1), the Center shall—

21 “(A) provide necessary support to smaller
 22 and medium-sized businesses to—

23 “(i) evaluate energy efficiency and
 24 green building opportunities;

1 “(ii) evaluate renewable energy
2 sources such as the use of solar and small
3 wind to supplement power consumption;

4 “(iii) secure financing to achieve en-
5 ergy efficiency or to construct green build-
6 ings; and

7 “(iv) empower management to imple-
8 ment energy efficiency projects;

9 “(B) assist entrepreneurs with clean tech-
10 nology development and technology commer-
11 cialization through—

12 “(i) technology assessment;

13 “(ii) intellectual property;

14 “(iii) Small Business Innovation Re-
15 search submissions;

16 “(iv) strategic alliances;

17 “(v) business model development; and

18 “(vi) preparation for investors; and

19 “(C) help small business improve environ-
20 mental performance by shifting to less haz-
21 ardous materials and reducing waste and emis-
22 sions at the source, including by providing as-
23 sistance for businesses to adapt the materials
24 they use, the processes they operate, and the
25 products and services they produce.

1 “(3) MINIMUM AMOUNT.—Each grant under
2 this subsection shall be for at least \$150,000.

3 “(4) MAXIMUM AMOUNT.—A grant under this
4 subsection may not exceed \$300,000.

5 “(5) AUTHORIZATION OF APPROPRIATIONS.—
6 Subject to amounts approved in advance in appro-
7 priations Acts and separate from amounts approved
8 to carry out section 21(a)(1), the Administrator may
9 make grants or enter into cooperative agreements to
10 carry out the provisions of this subsection.”.

11 **SEC. 3006. SMALL BUSINESS ADMINISTRATION TO EDU-**
12 **CATE AND PROMOTE ENERGY EFFICIENCY**
13 **IDEAS TO SMALL BUSINESSES AND WORK**
14 **WITH THE SMALL BUSINESS COMMUNITY TO**
15 **MAKE SUCH INFORMATION WIDELY AVAIL-**
16 **ABLE.**

17 The Small Business Act is amended—

18 (1) by redesignating section 37 as section 99;

19 and

20 (2) by inserting after section 36 (15 U.S.C.
21 657f) the following:

22 **“SEC. 37. PROGRAM TO PROVIDE EDUCATION ON ENERGY**
23 **EFFICIENCY.**

24 “(a) PROGRAM REQUIRED.—The Administrator shall
25 develop and coordinate a Government-wide program,

1 building on the Energy Star for Small Business program,
2 to assist small businesses in—

3 “(1) becoming more energy efficient;

4 “(2) understanding the cost savings from im-
5 proved energy efficiency; and

6 “(3) identifying financing options for energy ef-
7 ficiency upgrades.

8 “(b) CONSULTATION AND COOPERATION.—The pro-
9 gram required by subsection (a) shall be developed and
10 coordinated—

11 “(1) in consultation with the Secretary of En-
12 ergy and the Administrator of the Environmental
13 Protection Agency; and

14 “(2) in cooperation with any entities the Ad-
15 ministrator considers appropriate, such as industry
16 trade associations, industry members, and energy ef-
17 ficiency organizations.

18 “(c) AVAILABILITY OF INFORMATION.—The Admin-
19 istrator shall make available the information and materials
20 developed under the program required by subsection (a)
21 to—

22 “(1) small businesses; and

23 “(2) other Federal programs for energy effi-
24 ciency, such as the Energy Star for Small Business
25 program.

1 “(d) STRATEGY AND REPORT.—

2 “(1) STRATEGY REQUIRED.—The Adminis-
3 trator shall develop a strategy to educate, encourage,
4 and assist small business to adopt energy efficient
5 building fixtures and equipment.

6 “(2) REPORT.—Not later than December 31,
7 2008, the Administrator shall submit to Congress a
8 report containing a plan to implement the strat-
9 egy.”.

10 **SEC. 3007. ENERGY SAVING DEBENTURES.**

11 Section 303 of the Small Business Investment Act
12 of 1958 (15 U.S.C. 683) is amended by adding at the end
13 the following new subsection:

14 “(k) ENERGY SAVING DEBENTURES.—

15 “(1) IN GENERAL.—In addition to any other
16 authority under this Act, a small business invest-
17 ment company licensed after September 30, 2007,
18 shall have authority to issue Energy Saving debent-
19 tures.

20 “(2) ENERGY SAVING DEBENTURE DEFINED.—

21 As used in this Act, the term ‘Energy Saving debent-
22 ture’ means a deferred interest debenture that—

23 “(A) is issued at a discount;

24 “(B) has a five-year maturity or a ten-year
25 maturity;

1 “(C) requires no interest payment or an-
2 nual charge for the first five years;

3 “(D) is restricted to Energy Saving quali-
4 fied investments; and

5 “(E) is issued at no cost (as defined in
6 section 502 of the Credit Reform Act of 1990)
7 with respect to purchasing and guaranteeing
8 the debenture.

9 “(3) ENERGY SAVING QUALIFIED INVESTMENT
10 DEFINED.—As used in this Act, the term ‘Energy
11 Saving qualified investment’ means investment in a
12 small business that is primarily engaged in research-
13 ing, manufacturing, developing, or providing prod-
14 ucts, goods, or services that reduce the use or con-
15 sumption of non-renewable energy resources.”.

16 **SEC. 3008. INVESTMENTS IN ENERGY SAVING SMALL BUSI-**
17 **NESSES.**

18 (a) MAXIMUM LEVERAGE.—Paragraph (2) of sub-
19 section (b) of section 303 of the Small Business Invest-
20 ment Act of 1958 (15 U.S.C. 303(b)(2)) is amended by
21 adding at the end the following new subparagraph:

22 “(D) INVESTMENTS IN ENERGY SAVING
23 SMALL BUSINESSES.—In calculating the out-
24 standing leverage of a company for purposes of
25 subparagraph (A), the Administrator shall not

1 include the amount of the cost basis of any En-
2 ergy Saving qualified investment (as defined in
3 subsection (k)) made after September 30, 2007,
4 by a company licensed after September 30,
5 2007, in a smaller enterprise, to the extent that
6 the total of such amounts does not exceed 50
7 percent of the company's private capital, sub-
8 ject to such terms as the Administrator may
9 impose to assure no cost (as defined in section
10 502 of the Federal Credit Reform Act of 1990)
11 with respect to purchasing or guaranteeing any
12 debenture involved.”.

13 (b) MAXIMUM AGGREGATE AMOUNT OF LEVER-
14 AGE.—Paragraph (4) of subsection (b) of section 303 of
15 the Small Business Investment Act of 1958 (15 U.S.C.
16 303(b)(4)) is amended by adding at the end the following
17 new subparagraph:

18 “(E) INVESTMENTS IN ENERGY SAVING
19 SMALL BUSINESSES.—In calculating the aggre-
20 gate outstanding leverage of a company for pur-
21 poses of subparagraph (A), the Administrator
22 shall not include the amount of the cost basis
23 of any Energy Saving qualified investment (as
24 defined in subsection (k)) made after Sep-
25 tember 30, 2007, by a company licensed after

1 September 30, 2007, in a smaller enterprise, to
 2 the extent that the total of such amounts does
 3 not exceed 50 percent of the company’s private
 4 capital, subject to such terms as the Adminis-
 5 trator may impose to assure no cost (as defined
 6 in section 502 of the Federal Credit Reform
 7 Act of 1990) with respect to purchasing or
 8 guaranteeing any debenture involved.”.

9 **SEC. 3009. RENEWABLE FUEL CAPITAL INVESTMENT COM-**
 10 **PANY.**

11 Title III of the Small Business Investment Act of
 12 1958 (15 U.S.C. 681 et seq.) is amended by adding at
 13 the end the following new part:

14 **“PART C—RENEWABLE FUEL CAPITAL**
 15 **INVESTMENT PILOT PROGRAM**

16 **“SEC. 381. DEFINITIONS.**

17 “In this part, the following definitions apply:

18 “(1) VENTURE CAPITAL.—The term ‘venture
 19 capital’ means capital in the form of equity capital
 20 investments. For the purposes of this paragraph, the
 21 term ‘equity capital’ has the same meaning given
 22 such term in section 303(g)(4).

23 “(2) RENEWABLE FUEL CAPITAL INVESTMENT
 24 COMPANY.—The term ‘Renewable Fuel Capital In-
 25 vestment Company’ means a company that—

1 “(A) has been granted final approval by
2 the Administrator under section 384(e); and

3 “(B) has entered into a participation
4 agreement with the Administrator.

5 “(3) OPERATIONAL ASSISTANCE.—The term
6 ‘operational assistance’ means management, mar-
7 keting, and other technical assistance that assists a
8 small business concern with business development.

9 “(4) PARTICIPATION AGREEMENT.—The term
10 ‘participation agreement’ means an agreement, be-
11 tween the Administrator and a company granted
12 final approval under section 384(e), that—

13 “(A) details the company’s operating plan
14 and investment criteria; and

15 “(B) requires the company to make invest-
16 ments in smaller enterprises primarily engaged
17 in researching, manufacturing, developing, or
18 bringing to market renewable energy sources.

19 “(5) RENEWABLE ENERGY.—The term ‘renew-
20 able energy means’ energy derived from resources
21 that are regenerative or that cannot be depleted, in-
22 cluding but not limited to ethanol and biodiesel
23 fuels.

24 “(6) STATE.—The term ‘State’ means such of
25 the several States, the District of Columbia, the

1 Commonwealth of Puerto Rico, the Virgin Islands,
2 Guam, American Samoa, the Commonwealth of the
3 Northern Mariana Islands, and any other common-
4 wealth, territory, or possession of the United States.

5 **“SEC. 382. PURPOSES.**

6 “The purposes of the Renewable Fuel Capital Invest-
7 ment Program established under this part are—

8 “(1) to promote the research, development,
9 manufacture and bringing to market of renewable
10 energy sources by encouraging venture capital in-
11 vestments in smaller enterprises primarily engaged
12 such activities; and

13 “(2) to establish a venture capital program,
14 with the mission of addressing the unmet equity in-
15 vestment needs of small enterprises engaged in re-
16 searching, developing, manufacturing, and bringing
17 to market renewable energy sources, to be adminis-
18 tered by the Administrator—

19 “(A) to enter into participation agreements
20 with Renewable Fuel Capital Investment com-
21 panies;

22 “(B) to guarantee debentures of Renew-
23 able Fuel Capital Investment companies to en-
24 able each such company to make venture capital
25 investments in smaller enterprises engaged in

1 the research, development, manufacture, and
2 bringing to market renewable energy sources;
3 and

4 “(C) to make grants to Renewable Fuel
5 Investment Capital companies, and to other en-
6 tities, for the purpose of providing operational
7 assistance to smaller enterprises financed, or
8 expected to be financed, by such companies.

9 **“SEC. 383. ESTABLISHMENT.**

10 “In accordance with this part, the Administrator
11 shall establish a Renewable Fuel Capital Investment Pro-
12 gram, under which the Administrator may—

13 “(1) enter into participation agreements with
14 companies granted final approval under section
15 384(e) for the purposes set forth in section 382; and

16 “(2) guarantee the debentures issued by Renew-
17 able Fuel Capital Investment companies as provided
18 in section 385.

19 **“SEC. 384. SELECTION OF RENEWABLE FUEL CAPITAL IN-**
20 **VESTMENT COMPANIES.**

21 “(a) **ELIGIBILITY.**—A company shall be eligible to
22 apply to participate, as a Renewable Fuel Capital Invest-
23 ment company, in the program established under this part
24 if—

1 “(1) the company is a newly formed for-profit
2 entity or a newly formed for-profit subsidiary of an
3 existing entity;

4 “(2) the company has a management team with
5 experience in alternative energy financing or relevant
6 venture capital financing; and

7 “(3) the company has a primary objective of in-
8 vestment in companies that research, manufacture,
9 develop, or bring to market renewable energy
10 sources.

11 “(b) APPLICATION.—To participate, as a Renewable
12 Fuel Capital Investment company, in the program estab-
13 lished under this part a company meeting the eligibility
14 requirements set forth in subsection (a) shall submit an
15 application to the Administrator that includes—

16 “(1) a business plan describing how the com-
17 pany intends to make successful venture capital in-
18 vestments in smaller businesses primarily engaged in
19 the research, manufacture, development, or bringing
20 to market of renewable energy sources;

21 “(2) information regarding the relevant venture
22 capital qualifications and general reputation of the
23 company’s management;

1 “(3) a description of how the company intends
2 to seek to address the unmet capital needs of the
3 smaller businesses served;

4 “(4) a proposal describing how the company in-
5 tends to use the grant funds provided under this
6 part to provide operational assistance to smaller en-
7 terprises financed by the company, including infor-
8 mation regarding whether the company intends to
9 use licensed professionals when necessary on the
10 company’s staff or from an outside entity;

11 “(5) with respect to binding commitments to be
12 made to the company under this part, an estimate
13 of the ratio of cash to in-kind contributions;

14 “(6) a description of the criteria to be used to
15 evaluate whether and to what extent the company
16 meets the objectives of the program established
17 under this part;

18 “(7) information regarding the management
19 and financial strength of any parent firm, affiliated
20 firm, or any other firm essential to the success of
21 the company’s business plan; and

22 “(8) such other information as the Adminis-
23 trator may require.

24 “(c) CONDITIONAL APPROVAL.—

1 “(1) IN GENERAL.—From among companies
2 submitting applications under subsection (b), the
3 Administrator shall, in accordance with this sub-
4 section, conditionally approve companies to partici-
5 pate in the Renewable Fuel Capital Investment Pro-
6 gram.

7 “(2) SELECTION CRITERIA.—In selecting com-
8 panies under paragraph (1), the Administrator shall
9 consider the following:

10 “(A) The likelihood that the company will
11 meet the goal of its business plan.

12 “(B) The experience and background of
13 the company’s management team.

14 “(C) The need for venture capital invest-
15 ments in the geographic areas in which the
16 company intends to invest.

17 “(D) The extent to which the company will
18 concentrate its activities on serving the geo-
19 graphic areas in which it intends to invest.

20 “(E) The likelihood that the company will
21 be able to satisfy the conditions under sub-
22 section (d).

23 “(F) The extent to which the activities
24 proposed by the company will expand economic

1 opportunities in the geographic areas in which
2 the company intends to invest.

3 “(G) The strength of the company’s pro-
4 posal to provide operational assistance under
5 this part as the proposal relates to the ability
6 of the applicant to meet applicable cash require-
7 ments and properly utilize in-kind contribu-
8 tions, including the use of resources for the
9 services of licensed professionals, when nec-
10 essary, whether provided by persons on the
11 company’s staff or by persons outside of the
12 company.

13 “(H) Any other factors deemed appro-
14 priate by the Administrator.

15 “(3) NATIONWIDE DISTRIBUTION.—The Admin-
16 istrator shall select companies under paragraph (1)
17 in such a way that promotes investment nationwide.

18 “(d) REQUIREMENTS TO BE MET FOR FINAL AP-
19 PROVAL.—The Administrator shall grant each condi-
20 tionally approved company a period of time, not to exceed
21 2 years, to satisfy the following requirements:

22 “(1) CAPITAL REQUIREMENT.—Each condi-
23 tionally approved company shall raise not less than
24 \$5,000,000 of private capital or binding capital com-
25 mitments from one or more investors (other than

1 agencies or departments of the Federal Government)
2 who met criteria established by the Administrator.

3 “(2) NONADMINISTRATION RESOURCES FOR
4 OPERATIONAL ASSISTANCE.—

5 “(A) IN GENERAL.—In order to provide
6 operational assistance to smaller enterprises ex-
7 pected to be financed by the company, each
8 conditionally approved company—

9 “(i) shall have binding commitments
10 (for contribution in cash or in kind)—

11 “(I) from any sources other than
12 the Small Business Administration
13 that meet criteria established by the
14 Administrator;

15 “(II) payable or available over a
16 multiyear period acceptable to the Ad-
17 ministrator (not to exceed 10 years);
18 and

19 “(III) in an amount not less than
20 30 percent of the total amount of cap-
21 ital and commitments raised under
22 paragraph (1);

23 “(ii) shall have purchased an annu-
24 ity—

1 “(I) from an insurance company
2 acceptable to the Administrator;

3 “(II) using funds (other than the
4 funds raised under paragraph (1)),
5 from any source other than the Ad-
6 ministrator; and

7 “(III) that yields cash payments
8 over a multiyear period acceptable to
9 the Administrator (not to exceed 10
10 years) in an amount not less than 30
11 percent of the total amount of capital
12 and commitments raised under para-
13 graph (1); or

14 “(iii) shall have binding commitments
15 (for contributions in cash or in kind) of the
16 type described in clause (i) and shall have
17 purchased an annuity of the type described
18 in clause (ii), which in the aggregate make
19 available, over a multiyear period accept-
20 able to the Administrator (not to exceed 10
21 years), an amount not less than 30 percent
22 of the total amount of capital and commit-
23 ments raised under paragraph (1).

24 “(B) EXCEPTION.—The Administrator
25 may, in the discretion of the Administrator and

1 based upon a showing of special circumstances
2 and good cause, consider an applicant to have
3 satisfied the requirements of subparagraph (A)
4 if the applicant has—

5 “(i) a viable plan that reasonably
6 projects the capacity of the applicant to
7 raise the amount (in cash or in-kind) re-
8 quired under subparagraph (A); and

9 “(ii) binding commitments in an
10 amount equal to not less than 20 percent
11 of the total amount required under para-
12 graph (A).

13 “(C) LIMITATION.—In order to comply
14 with the requirements of subparagraphs (A)
15 and (B), the total amount of a company’s in-
16 kind contributions may not exceed 50 percent
17 of the company’s total contributions.

18 “(e) FINAL APPROVAL; DESIGNATION.—The Admin-
19 istrator shall, with respect to each applicant conditionally
20 approved to operate as a Renewable Fuel Capital Invest-
21 ment Company under subsection (c), either—

22 “(1) grant final approval to the applicant to op-
23 erate as a Renewable Fuel Capital Investment com-
24 pany under this part and designate the applicant as
25 such a company, if the applicant—

1 “(A) satisfies the requirements of sub-
2 section (d) on or before the expiration of the
3 time period described in that subsection; and

4 “(B) enters into a participation agreement
5 with the Administrator; or

6 “(2) if the applicant fails to satisfy the require-
7 ments of subsection (d) on or before the expiration
8 of the time period described in that subsection, re-
9 voke the conditional approval granted under that
10 subsection.

11 **“SEC. 385. DEBENTURES.**

12 “(a) IN GENERAL.—The Administrator may guar-
13 antee the timely payment of principal and interest, as
14 scheduled, on debentures issued by any Renewable Fuel
15 Capital Investment company.

16 “(b) TERMS AND CONDITIONS.—The Administrator
17 may make guarantees under this section on such terms
18 and conditions as it deems appropriate, except that the
19 term of any debenture guaranteed under this section shall
20 not exceed 15 years.

21 “(c) FULL FAITH AND CREDIT OF THE UNITED
22 STATES.—The full faith and credit of the United States
23 is pledged to pay all amounts that may be required to be
24 paid under any guarantee under this part.

25 “(d) MAXIMUM GUARANTEE.—

1 “(1) IN GENERAL.—Under this section, the Ad-
 2 ministrator may guarantee the debentures issued by
 3 a Renewable Fuel Capital Investment company only
 4 to the extent that the total face amount of out-
 5 standing guaranteed debentures of such company
 6 does not exceed 150 percent of the private capital of
 7 the company, as determined by the Administrator.

8 “(2) TREATMENT OF CERTAIN FEDERAL
 9 FUNDS.—For the purposes of paragraph (1), private
 10 capital shall include capital that is considered to be
 11 Federal funds, if such capital is contributed by an
 12 investor other than an agency or department of the
 13 Federal Government.

14 **“SEC. 386. ISSUANCE AND GUARANTEE OF TRUST CERTIFI-**
 15 **CATES.**

16 “(a) ISSUANCE.—The Administrator may issue trust
 17 certificates representing ownership of all or a fractional
 18 part of debentures issued by a Renewable Fuel Capital
 19 Investment company and guaranteed by the Administrator
 20 under this part, if such certificates are based on and
 21 backed by a trust or pool approved by the Administrator
 22 and composed solely of guaranteed debentures.

23 “(b) GUARANTEE.—

24 “(1) IN GENERAL.—The Administrator may,
 25 under such terms and conditions as it deems appro-

1 priate, guarantee the timely payment of the principal
2 of and interest on trust certificates issued by the
3 Administrator or its agents for purposes of this sec-
4 tion.

5 “(2) LIMITATION.—Each guarantee under this
6 subsection shall be limited to the extent of principal
7 and interest on the guaranteed debentures that com-
8 pose the trust or pool.

9 “(3) PREPAYMENT OR DEFAULT.—In the event
10 that a debenture in a trust or pool is prepaid, or in
11 the event of default of such a debenture, the guar-
12 antee of timely payment of principal and interest on
13 the trust certificates shall be reduced in proportion
14 to the amount of principal and interest such prepaid
15 debenture represents in the trust or pool. Interest on
16 prepaid or defaulted debentures shall accrue and be
17 guaranteed by the Administrator only through the
18 date of payment of the guarantee. At any time dur-
19 ing its term, a trust certificate may be called for re-
20 demption due to prepayment or default of all deben-
21 tures.

22 “(c) FULL FAITH AND CREDIT OF THE UNITED
23 STATES.—The full faith and credit of the United States
24 is pledged to pay all amounts that may be required to be

1 paid under any guarantee of a trust certificate issued by
2 the Administrator or its agents under this section.

3 “(d) FEES.—The Administrator shall not collect a fee
4 for any guarantee of a trust certificate under this section,
5 but any agent of the Administrator may collect a fee ap-
6 proved by the Administrator for the functions described
7 in subsection (f)(2).

8 “(e) SUBROGATION AND OWNERSHIP RIGHTS.—

9 “(1) SUBROGATION.—In the event the Adminis-
10 trator pays a claim under a guarantee issued under
11 this section, it shall be subrogated fully to the rights
12 satisfied by such payment.

13 “(2) OWNERSHIP RIGHTS.—No Federal, State,
14 or local law shall preclude or limit the exercise by
15 the Administrator of its ownership rights in the de-
16 bentures residing in a trust or pool against which
17 trust certificates are issued under this section.

18 “(f) MANAGEMENT AND ADMINISTRATION.—

19 “(1) REGISTRATION.—The Administrator may
20 provide for a central registration of all trust certifi-
21 cates issued under this section.

22 “(2) CONTRACTING OF FUNCTIONS.—

23 “(A) IN GENERAL.—The Administrator
24 may contract with an agent or agents to carry
25 out on behalf of the Administrator the pooling

1 and the central registration functions provided
2 for in this section including, notwithstanding
3 any other provision of law—

4 “(i) maintenance, on behalf of and
5 under the direction of the Administrator,
6 of such commercial bank accounts or in-
7 vestments in obligations of the United
8 States as may be necessary to facilitate the
9 creation of trusts or pools backed by de-
10 bentures guaranteed under this part; and

11 “(ii) the issuance of trust certificates
12 to facilitate the creation of such trusts or
13 pools.

14 “(B) FIDELITY BOND OR INSURANCE RE-
15 QUIREMENT.—Any agent performing functions
16 on behalf of the Administrator under this para-
17 graph shall provide a fidelity bond or insurance
18 in such amounts as the Administrator deter-
19 mines to be necessary to fully protect the inter-
20 ests of the United States.

21 “(3) REGULATION OF BROKERS AND DEAL-
22 ERS.—The Administrator may regulate brokers and
23 dealers in trust certificates issued under this section.

24 “(4) ELECTRONIC REGISTRATION.—Nothing in
25 this subsection may be construed to prohibit the use

1 of a book-entry or other electronic form of registra-
2 tion for trust certificates issued under this section.

3 **“SEC. 387. FEES.**

4 “(a) IN GENERAL.—Except as provided in section
5 386(d), the Administrator may charge such fees as it
6 deems appropriate with respect to any guarantee or grant
7 issued under this part, in an amount established annually
8 by the Administration, as necessary to reduce to zero the
9 cost (as defined in section 502 of the Federal Credit Re-
10 form Act of 1990) to the Administration of purchasing
11 and guaranteeing debentures under this Act, which
12 amounts shall be paid to and retained by the Administra-
13 tion.

14 “(b) OFFSET.—The Administrator may, as provided
15 by section 388, offset fees charged and collected under
16 subsection (a).

17 **“SEC. 388. FEE CONTRIBUTION.**

18 “(a) IN GENERAL.—To the extent that amounts are
19 made available to the Administrator for the purpose of fee
20 contributions, the administrator shall contribute to fees
21 paid by the Renewable Fuel Capital Investment companies
22 under section 387.

23 “(b) ANNUAL ADJUSTMENT.—Each fee contribution
24 under subsection (a) shall be effective for one fiscal year
25 and shall be adjusted as necessary for each fiscal year

1 thereafter to ensure that amounts under subsection (a) are
2 fully used. The fee contribution for a fiscal year shall be
3 based on the outstanding commitments made and the
4 guarantees and grants that the Administrator projects will
5 be made during that fiscal year, given the program level
6 authorized by law for that fiscal year and any other fac-
7 tors that the Administrator deems appropriate.

8 **“SEC. 389. OPERATIONAL ASSISTANCE GRANTS.**

9 “(a) IN GENERAL.—

10 “(1) AUTHORITY.—In accordance with this sec-
11 tion, the Administrator may make grants to Renew-
12 able Fuel Capital Investment companies and to
13 other entities, as authorized by this part, to provide
14 operational assistance to smaller enterprises fi-
15 nanced, or expected to be financed, by such compa-
16 nies or other entities.

17 “(2) TERMS.—Grants made under this sub-
18 section shall be made over a multiyear period not to
19 exceed 10 years, under such other terms as the Ad-
20 ministrator may require.

21 “(3) GRANTS TO SPECIALIZED SMALL BUSINESS
22 INVESTMENT COMPANIES.—

23 “(A) AUTHORITY.—In accordance with
24 this section, the Administrator may make
25 grants to specialized small business investment

1 companies to provide operational assistance to
2 smaller enterprises financed, or expected to be
3 financed, by such companies after the effective
4 date of the Small Energy Efficient Businesses
5 Act.

6 “(B) USE OF FUNDS.—The proceeds of a
7 grant made under this paragraph may be used
8 by the company receiving such grant only to
9 provide operational assistance in connection
10 with an equity investment (made with capital
11 raised after the effective date of the Small En-
12 ergy Efficient Businesses Act) in a business lo-
13 cated in a low-income geographic area.

14 “(C) SUBMISSION OF PLANS.—A special-
15 ized small business investment company shall
16 be eligible for a grant under this section only if
17 the company submits to the Administrator, in
18 such form and manner as the Administrator
19 may require, a plan for use of the grant.

20 “(4) GRANT AMOUNT.—

21 “(A) RENEWABLE FUEL CAPITAL INVEST-
22 MENT COMPANIES.—The amount of a grant
23 made under this subsection to a Renewable
24 Fuel Capital Investment company shall be equal

1 to the resources (in cash or in kind) raised by
2 the company under section 354(d)(2).

3 “(B) OTHER ENTITIES.—The amount of a
4 grant made under this subsection to any entity
5 other than a Renewable Fuel Capital Invest-
6 ment company shall be equal to the resources
7 (in cash or in kind) raised by the entity in ac-
8 cordance with the requirements applicable to
9 Renewable Fuel Capital Investment companies
10 set forth in section 384(d)(2).

11 “(5) PRO RATA REDUCTIONS.—If the amount
12 made available to carry out this section is insuffi-
13 cient for the Administrator to provide grants in the
14 amounts provided for in paragraph (4), the Adminis-
15 trator shall make pro rata reductions in the amounts
16 otherwise payable to each company and entity under
17 such paragraph.

18 “(b) SUPPLEMENTAL GRANTS.—

19 “(1) IN GENERAL.—The Administrator may
20 make supplemental grants to Renewable Fuel Cap-
21 ital Investment companies and to other entities, as
22 authorized by this part under such terms as the Ad-
23 ministrator may require, to provide additional oper-
24 ational assistance to smaller enterprises financed, or
25 expected to be financed, by the companies.

1 “(2) MATCHING REQUIREMENT.—The Adminis-
2 trator may require, as a condition of any supple-
3 mental grant made under this subsection, that the
4 company or entity receiving the grant provide from
5 resources (in a cash or in kind), other than those
6 provided by the Administrator, a matching contribu-
7 tion equal to the amount of the supplemental grant.

8 “(c) LIMITATION.—None of the assistance made
9 available under this section may be used for any overhead
10 or general and administrative expense of a Renewable
11 Fuel Capital Investment company or a specialized small
12 business investment company.

13 **“SEC. 390. BANK PARTICIPATION.**

14 “(a) IN GENERAL.—Except as provided in subsection
15 (b), any national bank, any member bank of the Federal
16 Reserve System, and (to the extent permitted under appli-
17 cable State law) any insured bank that is not a member
18 of such system, may invest in any Renewable Fuel Capital
19 Investment company, or in any entity established to invest
20 solely in Renewable Fuel Capital Investment companies.

21 “(b) LIMITATION.—No bank described in subsection
22 (a) may make investments described in such subsection
23 that are greater than 5 percent of the capital and surplus
24 of the bank.

1 **“SEC. 391. FEDERAL FINANCING BANK.**

2 “Section 318 shall not apply to any debenture issued
3 by a Renewable Fuel Capital Investment company under
4 this part.

5 **“SEC. 392. REPORTING REQUIREMENT.**

6 “Each Renewable Fuel Capital Investment company
7 that participates in the program established under this
8 part shall provide to the Administrator such information
9 as the Administrator may require, including—

10 “(1) information related to the measurement
11 criteria that the company proposed in its program
12 application; and

13 “(2) in each case in which the company under
14 this part makes an investment in, or a loan or a
15 grant to, a business that is not primarily engaged in
16 the research, development, manufacture, or bringing
17 to market or renewable energy sources, a report on
18 the nature, origin, and revenues of the business in
19 which investments are made.

20 **“SEC. 393. EXAMINATIONS.**

21 “(a) IN GENERAL.—Each Renewable Fuel Capital
22 Investment company that participates in the program es-
23 tablished under this part shall be subject to examinations
24 made at the direction of the Investment Division of the
25 Small Business Administration in accordance with this
26 section.

1 “(b) ASSISTANCE OF PRIVATE SECTOR ENTITIES.—
2 Examinations under this section may be conducted with
3 the assistance of a private sector entity that has both the
4 qualifications and the expertise necessary to conduct such
5 examinations.

6 “(c) COSTS.—

7 “(1) ASSESSMENT.—

8 “(A) IN GENERAL.—The Administrator
9 may assess the cost of examinations under this
10 section, including compensation of the exam-
11 iners, against the company examined.

12 “(B) PAYMENT.—Any company against
13 which the Administrator assesses costs under
14 this paragraph shall pay such costs.

15 “(2) DEPOSIT OF FUNDS.—Funds collected
16 under this section shall be deposited in the account
17 for salaries and expenses of the Small Business Ad-
18 ministration.

19 **“SEC. 394. MISCELLANEOUS.**

20 “To the extent such procedures are not inconsistent
21 with the requirements of this part, the Administrator may
22 take such action as set forth in sections 309, 311, 312,
23 and 314 of this Act.

1 **“SEC. 395. REMOVAL OR SUSPENSION OF DIRECTORS OR**
2 **OFFICERS.**

3 “Using the procedures for removing or suspending a
4 director or an officer of a licensee set forth in section 313
5 (to the extent such procedures are not inconsistent with
6 the requirements of this part), the Administrator may re-
7 move or suspend any director or officer of any Renewable
8 Fuel Capital Investment company.

9 **“SEC. 396. REGULATIONS.**

10 “The Administrator may issue such regulations as it
11 deems necessary to carry out the provisions of this part
12 in accordance with its purposes.

13 **“SEC. 397. AUTHORIZATIONS OF APPROPRIATIONS.**

14 “(a) GRANTS.—The Administrator is authorized to
15 make \$15,000,000 per fiscal year in operational assistance
16 grants.

17 “(b) FUNDS COLLECTED FOR EXAMINATIONS.—
18 Funds deposited under section 393(c)(2) are authorized
19 to be appropriated only for the costs of examinations
20 under section 393 and for the costs of other oversight ac-
21 tivities with respect to the program established under this
22 part.”.

23 **SEC. 3010. STUDY AND REPORT.**

24 The Administrator shall conduct a study of the Re-
25 newable Fuel Capital Investment Program under part C
26 of title III of the Small Business Investment Act of 1958.

1 Not later than 3 years after the date of the enactment
2 of this Act, the Administrator shall complete the study
3 and submit to the Congress a report of the results of the
4 study.

5 **TITLE IV—SCIENCE AND**
6 **TECHNOLOGY**
7 **Subtitle A—Advanced Research**
8 **Projects Agency-Energy**

9 **SEC. 4001. ADVANCED RESEARCH PROJECTS AGENCY-EN-**
10 **ERGY.**

11 (a) ESTABLISHMENT.—There is established the Ad-
12 vanced Research Projects Agency-Energy (in this subtitle
13 referred to as “ARPA–E”) within the Department of En-
14 ergy to overcome the long-term and high-risk technological
15 barriers in the development of energy technologies.

16 (b) GOALS.—The goals of ARPA–E are to enhance
17 the Nation’s economic and energy security through the de-
18 velopment of energy technologies that result in reductions
19 of imports of energy from foreign sources, reductions of
20 energy-related emissions including greenhouse gases, im-
21 provements in the energy efficiency of all economic sectors,
22 and to ensure that the United States maintains a techno-
23 logical lead in developing and deploying energy tech-
24 nologies. ARPA–E will achieve this by—

1 (1) identifying and promoting revolutionary ad-
2 vances in fundamental sciences;

3 (2) translating scientific discoveries and cut-
4 ting-edge inventions into technological innovations;
5 and

6 (3) accelerating transformational technological
7 advances in areas that industry by itself is not likely
8 to undertake because of technical and financial un-
9 certainty.

10 (c) DIRECTOR.—ARPA-E shall be headed by a Di-
11 rector who shall be appointed by the Secretary of Energy.
12 The Director shall report to the Secretary. No other pro-
13 grams within the Department of Energy shall report to
14 the Director of ARPA-E.

15 (d) RESPONSIBILITIES.—The Director shall admin-
16 ister the Fund established under section 4002 to award
17 competitive grants, cooperative agreements, or contracts
18 to institutions of higher education, companies, research
19 foundations, trade and industry research collaborations, or
20 consortia of such entities which may include federally
21 funded research and development centers, to achieve the
22 goals stated in subsection (b) through targeted accelera-
23 tion of—

24 (1) novel early-stage energy research with pos-
25 sible technology applications;

1 (2) development of techniques, processes, and
2 technologies, and related testing and evaluation;

3 (3) research and development of manufacturing
4 processes for novel energy technologies; and

5 (4) demonstration and coordination with non-
6 governmental entities for commercial applications of
7 energy technologies and research applications.

8 (e) PERSONNEL.—

9 (1) PROGRAM MANAGERS.—The Director shall
10 designate employees to serve as program managers
11 for each of the programs established pursuant to the
12 responsibilities established for ARPA-E under sub-
13 section (d). Program managers shall be responsible
14 for—

15 (A) establishing research and development
16 goals for the program, including through the
17 convening of workshops and conferring with
18 outside experts, as well as publicizing the goals
19 to the public and private sectors;

20 (B) soliciting applications for specific areas
21 of particular promise, especially those which the
22 private sector or the Federal Government are
23 not likely to undertake alone;

24 (C) building research collaborations for
25 carrying out the program;

1 (D) selecting on the basis of merit, with
2 advice under section 4003 as appropriate, each
3 of the energy projects to be supported under
4 the program following consideration of—

5 (i) the novelty and scientific and tech-
6 nical merit of the proposed projects;

7 (ii) the demonstrated capabilities of
8 the applicants to successfully carry out the
9 proposed research project;

10 (iii) the applicant's consideration of
11 future commercial applications of the
12 project, including the feasibility of
13 partnering with 1 or more commercial enti-
14 ties; and

15 (iv) such other criteria as are estab-
16 lished by the Director; and

17 (E) monitoring the progress of projects
18 supported under the program, and prescribing
19 program restructure or termination of research
20 partnerships or whole projects that do not show
21 promise.

22 (2) HIRING AND MANAGEMENT.—In hiring per-
23 sonnel for ARPA-E, the Director shall have the au-
24 thority to make appointments of scientific, engineer-
25 ing, and professional personnel without regard to the

1 civil service laws, and fix the compensation of such
2 personnel at a rate to be determined by the Director.
3 The term of appointments for employees may not ex-
4 ceed 3 years before the granting of any extension. In
5 hiring initial staff the Secretary shall give preference
6 to applicants with experience in the Defense Ad-
7 vanced Research Projects Agency, academia, or in
8 private sector technology development. The Sec-
9 retary or Director may contract with private recruit-
10 ing firms in hiring qualified technical staff.

11 (3) ADDITIONAL HIRING.—The Director may
12 hire additional technical, financial, managerial, or
13 other staff as needed to carry out the activities of
14 the program.

15 (f) COORDINATION AND NONDUPLICATION.—To the
16 extent practicable, the Director shall ensure that the ac-
17 tivities of ARPA-E are coordinated with, and do not du-
18 plicate the efforts of, existing programs and laboratories
19 within the Department of Energy and other relevant re-
20 search agencies. Where appropriate, the Director may co-
21 ordinate technology transfer efforts with the Technology
22 Transfer Coordinator established in section 1001 of the
23 Energy Policy Act of 2005 (42 U.S.C. 16391).

24 (g) FEDERAL DEMONSTRATION OF TECH-
25 NOLOGIES.—The Secretary shall make information avail-

1 able to purchasing and procurement programs of Federal
2 agencies regarding the potential to demonstrate tech-
3 nologies resulting from activities funded through ARPA-
4 E.

5 **SEC. 4002. FUND.**

6 (a) ESTABLISHMENT.—There is established in the
7 Treasury the Energy Transformation Acceleration Fund
8 (in this subtitle referred to as the “Fund”), which shall
9 be administered by the Director of ARPA-E for the pur-
10 poses of carrying out this subtitle.

11 (b) AUTHORIZATION OF APPROPRIATIONS.—There
12 are authorized to be appropriated to the Director of
13 ARPA-E for deposit in the Fund \$300,000,000 for fiscal
14 year 2008, \$1,000,000,000 for fiscal year 2009,
15 \$1,100,000,000 for fiscal year 2010, \$1,200,000,000 for
16 fiscal year 2011, and \$1,300,000,000 for fiscal year 2012,
17 to remain available until expended.

18 (c) LIMITATION.—No amounts may be appropriated
19 for the first year of funding for ARPA-E unless the
20 amount appropriated for the activities of the Office of
21 Science of the Department of Energy for that fiscal year
22 exceed the amount appropriated for that Office for fiscal
23 year 2007, as adjusted for inflation according to the Con-
24 sumer Price Index.

1 (d) ALLOCATION.—Of the amounts appropriated for
2 a fiscal year under subsection (b)—

3 (1) not more than 50 percent shall be for activi-
4 ties under section 4001(d)(4);

5 (2) not more than 8 percent shall be made
6 available to Federally Funded Research and Devel-
7 opment Centers;

8 (3) not more than 10 percent may be used for
9 administrative expenses;

10 (4) at least 2.5 percent shall be designated for
11 technology transfer and outreach activities; and

12 (5) during the first 5 years of operation of
13 ARPA–E, no funds may be used for construction of
14 new buildings or facilities.

15 **SEC. 4003. ADVICE.**

16 (a) ADVISORY COMMITTEES.—The Director may seek
17 advice on any aspect of ARPA–E from—

18 (1) existing Department of Energy advisory
19 committees; and

20 (2) new advisory committees organized to sup-
21 port the programs of ARPA–E and to provide advice
22 and assistance on—

23 (A) specific program tasks; or

24 (B) overall direction of ARPA–E.

1 (b) ADDITIONAL SOURCES OF ADVICE.—The Direc-
2 tor may seek advice and review from the National Acad-
3 emy of Sciences, the National Academy for Engineering,
4 and any other professional or scientific organization with
5 expertise in specific processes or technologies under devel-
6 opment by ARPA-E.

7 **SEC. 4004. ARPA-E EVALUATION.**

8 After ARPA-E has been in operation for 54 months,
9 the President's Committee on Science and Technology
10 shall begin an evaluation (to be completed within 12
11 months) of how well ARPA-E is achieving its goals and
12 mission. The evaluation shall include the recommendation
13 of such Committee on whether ARPA-E should be contin-
14 ued or terminated, as well as lessons-learned from its oper-
15 ation. The evaluation shall be made available to Congress
16 and to the public upon completion.

17 **SEC. 4005. SAVINGS CLAUSE.**

18 The authorities granted by this subtitle are in addi-
19 tion to existing authorities granted to the Secretary of En-
20 ergy, and not intended to supersede or modify any existing
21 authorities.

1 **Subtitle B—Marine Renewable**
2 **Energy Technologies**

3 **SEC. 4101. SHORT TITLE.**

4 This subtitle may be cited as the “Marine Renewable
5 Energy Research and Development Act of 2007”.

6 **SEC. 4102. FINDINGS.**

7 The Congress finds the following:

8 (1) The United States has a critical national in-
9 terest in developing clean, domestic, renewable
10 sources of energy in order to reduce environmental
11 impacts of energy production, increase national secu-
12 rity, improve public health, and bolster economic
13 stability.

14 (2) Marine renewable energy technologies are a
15 nonemitting source of power production.

16 (3) Marine renewable energy may serve as an
17 alternative to fossil fuels and create thousands of
18 new jobs within the United States.

19 (4) Europe has already successfully delivered
20 electricity to the grid through the deployment of
21 wave and tidal energy devices off the coast of Scot-
22 land.

23 (5) Recent studies from the Electric Power Re-
24 search Institute, in conjunction with the Department
25 of Energy’s National Renewable Energy Laboratory,

1 have identified an abundance of viable sites within
2 the United States with ample wave and tidal re-
3 sources to be harnessed by marine power tech-
4 nologies.

5 (6) Sustained and expanded research, develop-
6 ment, demonstration, and commercial application
7 programs are needed to locate and characterize ma-
8 rine renewable energy resources, and to develop the
9 technologies that will enable their widespread com-
10 mercial development.

11 (7) Federal support is critical to reduce the fi-
12 nancial risk associated with developing new marine
13 renewable energy technologies, thereby encouraging
14 the private sector investment necessary to make ma-
15 rine renewable energy resources commercially viable
16 as a source of electric power and for other applica-
17 tions.

18 **SEC. 4103. DEFINITIONS.**

19 For purposes of this subtitle—

20 (1) MARINE RENEWABLE ENERGY.—The term
21 “Marine Renewable Energy” means energy derived
22 from one or more of the following sources:

23 (A) Waves.

24 (B) Tidal flows.

25 (C) Ocean currents.

1 (D) Ocean thermal energy conversion.

2 (2) SECRETARY.—The term “Secretary” means
3 the Secretary of Energy.

4 **SEC. 4104. MARINE RENEWABLE ENERGY RESEARCH AND**
5 **DEVELOPMENT.**

6 (a) IN GENERAL.—The Secretary, in conjunction
7 with other appropriate agencies, shall support programs
8 of research, development, demonstration, and commercial
9 application to expand marine renewable energy produc-
10 tion, including programs to—

11 (1) study and compare existing marine renew-
12 able energy extraction technologies;

13 (2) research, develop, and demonstrate ad-
14 vanced marine renewable energy systems and tech-
15 nologies;

16 (3) reduce the manufacturing and operation
17 costs of marine renewable energy technologies;

18 (4) investigate efficient and reliable integration
19 with the utility grid and intermittency issues;

20 (5) advance wave forecasting technologies;

21 (6) conduct experimental and numerical mod-
22 eling for optimization of marine energy conversion
23 devices and arrays;

1 (7) increase the reliability and survivability of
2 marine renewable energy technologies, including de-
3 velopment of corrosive-resistant materials;

4 (8) study, in conjunction with the Assistant Ad-
5 ministrator for Research and Development of the
6 Environmental Protection Agency, the Undersecre-
7 tary of Commerce for Oceans and Atmosphere, and
8 other Federal agencies as appropriate, the environ-
9 mental impacts of marine renewable energy tech-
10 nologies and ways to address adverse impacts, and
11 provide public information concerning technologies
12 and other means available for monitoring and deter-
13 mining environmental impacts;

14 (9) establish protocols, in conjunction with the
15 National Oceanic and Atmospheric Administration,
16 for how the ocean community may best interact with
17 marine renewable energy devices;

18 (10) develop power measurement standards for
19 marine renewable energy;

20 (11) develop identification standards for marine
21 renewable energy devices;

22 (12) address standards development, dem-
23 onstration, and technology transfer for advanced
24 systems engineering and system integration methods
25 to identify critical interfaces; and

1 (13) utilize marine resources in the Gulf of
2 Mexico, the Atlantic Ocean, and the Pacific Ocean.

3 (b) SITING CRITERIA.—The Secretary, in conjunction
4 with other appropriate Federal agencies, shall develop,
5 prior to installation of any technologies under this section,
6 siting criteria for marine renewable energy generation
7 demonstration and commercial application projects funded
8 under this subtitle.

9 **SEC. 4105. NATIONAL MARINE RENEWABLE ENERGY RE-**
10 **SEARCH, DEVELOPMENT, AND DEMONSTRA-**
11 **TION CENTERS.**

12 (a) CENTERS.—The Secretary, acting through the
13 National Renewable Energy Laboratory, shall award
14 grants to institutions of higher education (or consortia
15 thereof) for the establishment of 1 or more National Ma-
16 rine Renewable Energy Research, Development, and Dem-
17 onstration Centers. In selecting locations for Centers, the
18 Secretary shall consider sites that meet one of the fol-
19 lowing criteria:

20 (1) Hosts an existing marine renewable energy
21 research and development program in coordination
22 with a public university engineering program.

23 (2) Has proven expertise to support environ-
24 mental and policy-related issues associated with har-
25 nessing of energy in the marine environment.

1 (3) Has access to and utilizes the marine re-
2 sources in the Gulf of Mexico, the Atlantic Ocean,
3 or the Pacific Ocean.

4 The Secretary may give special consideration to histori-
5 cally black colleges and universities and land grant univer-
6 sities that also meet one of these criteria. In establishing
7 criteria for the selection of Centers, the Secretary shall
8 coordinate with the Undersecretary of Commerce for
9 Oceans and Atmosphere on the criteria related to advanc-
10 ing wave forecasting technologies, studying the compat-
11 ibility with the environment of marine renewable energy
12 technologies and systems, and establishing protocols for
13 how the ocean community best interacts with marine re-
14 newable energy devices and parks.

15 (b) PURPOSES.—The Centers shall advance research,
16 development, demonstration, and commercial application
17 of marine renewable energy through a number of initia-
18 tives including for the purposes described in section
19 4104(1) through (13), and shall serve as an information
20 clearinghouse for the marine renewable energy industry,
21 collecting and disseminating information on best practices
22 in all areas related to developing and managing enhanced
23 marine renewable energy systems resources.

24 (c) DEMONSTRATION OF NEED.—When applying for
25 a grant under this section, an applicant shall include a

1 description of why Federal support is necessary for the
 2 Center, including evidence that the research of the Center
 3 will not be conducted in the absence of Federal support.

4 **SEC. 4106. APPLICABILITY OF OTHER LAWS.**

5 Nothing in this subtitle shall be construed as waiving
 6 the applicability of any requirement under any environ-
 7 mental or other Federal or State law.

8 **SEC. 4107. AUTHORIZATION OF APPROPRIATIONS.**

9 There are authorized to be appropriated to the Sec-
 10 retary to carry out this subtitle \$50,000,000 for each of
 11 the fiscal years 2008 through 2012, except that no funds
 12 shall be appropriated under this section for activities that
 13 are receiving funds under section 931(a)(2)(E)(i) of the
 14 Energy Policy Act of 2005 (42 U.S.C. 16231(a)(2)(E)(i)).

15 **Subtitle C—Geothermal Energy**

16 **SEC. 4201. SHORT TITLE.**

17 This subtitle may be cited as the “Advanced Geo-
 18 thermal Energy Research and Development Act of 2007”.

19 **SEC. 4202. FINDINGS.**

20 The Congress finds the following:

21 (1) The United States has a critical national in-
 22 terest in developing clean, domestic, renewable
 23 sources of energy in order to mitigate the causes of
 24 climate change, reduce other environmental impacts

1 of energy production, increase national security, im-
2 prove public health, and bolster economic stability.

3 (2) Geothermal energy is a renewable energy re-
4 source.

5 (3) Geothermal energy is unusual among renew-
6 able energy sources because of its ability to provide
7 an uninterrupted supply of baseload electricity.

8 (4) Recently published assessments by rep-
9 utable experts, including the Massachusetts Institute
10 of Technology, the Western Governors Association,
11 and the National Renewable Energy Laboratory, in-
12 dicate that the Nation's geothermal resources are
13 widely distributed, vast in size, and barely tapped.

14 (5) Sustained and expanded research, develop-
15 ment, demonstration, and commercial application
16 programs are needed to locate and characterize geo-
17 thermal resources, and to develop the technologies
18 that will enable their widespread commercial devel-
19 opment.

20 (6) Federal support is critical to reduce the fi-
21 nancial risk associated with developing new geo-
22 thermal technologies, thereby encouraging the pri-
23 vate sector investment necessary to make geothermal
24 resources commercially viable as a source of electric
25 power and for other applications.

1 **SEC. 4203. DEFINITIONS.**

2 For purposes of this subtitle:

3 (1) ENGINEERED.—When referring to enhanced
4 geothermal systems, the term “engineered” means
5 subjected to intervention, including intervention to
6 address one or more of the following issues:

7 (A) Lack of effective permeability or poros-
8 ity or open fracture connectivity within the res-
9 ervoir.

10 (B) Insufficient contained geofluid in the
11 reservoir.

12 (C) A low average geothermal gradient,
13 which necessitates deeper drilling.

14 (2) ENHANCED GEOTHERMAL SYSTEMS.—The
15 term “enhanced geothermal systems” means geo-
16 thermal reservoir systems that are engineered, as op-
17 posed to occurring naturally.

18 (3) GEOFLUID.—The term “geofluid” means
19 any fluid used to extract thermal energy from the
20 Earth which is transported to the surface for direct
21 use or electric power generation, except that such
22 term shall not include oil or natural gas.

23 (4) GEOPRESSURED RESOURCES.—The term
24 “geopressured resources” mean geothermal deposits
25 found in sedimentary rocks under higher than nor-
26 mal pressure and saturated with gas or methane.

1 (5) GEOTHERMAL.—The term “geothermal” re-
2 fers to heat energy stored in the Earth’s crust that
3 can be accessed for direct use or electric power gen-
4 eration.

5 (6) HYDROTHERMAL.—The term “hydro-
6 thermal” refers to naturally occurring subsurface
7 reservoirs of hot water or steam.

8 (7) SECRETARY.—The term “Secretary” means
9 the Secretary of Energy.

10 (8) SYSTEMS APPROACH.—The term “systems
11 approach” means an approach to solving problems
12 or designing systems that attempts to optimize the
13 performance of the overall system, rather than a
14 particular component of the system.

15 **SEC. 4204. HYDROTHERMAL RESEARCH AND DEVELOP-**
16 **MENT.**

17 (a) IN GENERAL.—The Secretary shall support pro-
18 grams of research, development, demonstration, and com-
19 mercial application to expand the use of geothermal en-
20 ergy production from hydrothermal systems, including the
21 programs described in subsection (b).

22 (b) PROGRAMS.—

23 (1) ADVANCED HYDROTHERMAL RESOURCE
24 TOOLS.—The Secretary, in consultation with other
25 appropriate agencies, shall support a program to de-

1 develop advanced geophysical, geochemical, and geo-
2 logic tools to assist in locating hidden hydrothermal
3 resources, and to increase the reliability of site char-
4 acterization before, during, and after initial drilling.
5 The program shall develop new prospecting tech-
6 niques to assist in prioritization of targets for char-
7 acterization. The program shall include a field com-
8 ponent.

9 (2) INDUSTRY COUPLED EXPLORATORY DRILL-
10 ING.—The Secretary shall support a program of
11 cost-shared field demonstration programs, to be pur-
12 sued, simultaneously and independently, in collabo-
13 ration with industry partners, for the demonstration
14 of technologies and techniques of siting and explor-
15 atory drilling for undiscovered resources in a variety
16 of geologic settings. The program shall include in-
17 centives to encourage the use of advanced tech-
18 nologies and techniques.

19 **SEC. 4205. GENERAL GEOTHERMAL SYSTEMS RESEARCH**
20 **AND DEVELOPMENT.**

21 (a) SUBSURFACE COMPONENTS AND SYSTEMS.—The
22 Secretary shall support a program of research, develop-
23 ment, demonstration, and commercial application of com-
24 ponents and systems capable of withstanding extreme geo-
25 thermal environments and necessary to cost-effectively de-

1 velop, produce, and monitor geothermal reservoirs and
2 produce geothermal energy. These components and sys-
3 tems shall include advanced casing systems (expandable
4 tubular casing, low-clearance casing designs, and others),
5 high-temperature cements, high-temperature submersible
6 pumps, and high-temperature packers, as well as tech-
7 nologies for under-reaming, multilateral completions,
8 high-temperature logging, and logging while drilling.

9 (b) RESERVOIR PERFORMANCE MODELING.—The
10 Secretary shall support a program of research, develop-
11 ment, demonstration, and commercial application of mod-
12 els of geothermal reservoir performance, with an emphasis
13 on accurately modeling performance over time. Models
14 shall be developed to assist both in the development of geo-
15 thermal reservoirs and to more accurately account for
16 stress-related effects in stimulated hydrothermal and en-
17 hanced geothermal systems production environments.

18 (c) ENVIRONMENTAL IMPACTS.—The Secretary
19 shall—

20 (1) support a program of research, develop-
21 ment, demonstration, and commercial application of
22 technologies and practices designed to mitigate or
23 preclude potential adverse environmental impacts of
24 geothermal energy development, production or use,
25 and seek to ensure that geothermal energy develop-

1 ment is consistent with the highest practicable
2 standards of environmental stewardship; and

3 (2) in conjunction with the Assistant Adminis-
4 trator for Research and Development at the Envi-
5 ronmental Protection Agency, support a research
6 program to identify potential environmental impacts
7 of geothermal energy development, production, and
8 use, and ensure that the program described in para-
9 graph (1) addresses such impacts, including effects
10 on groundwater and local hydrology.

11 Any potential environmental impacts identified as part of
12 the development, production, and use of geothermal en-
13 ergy shall be measured and examined against the potential
14 emissions offsets of greenhouses gases gained by geo-
15 thermal energy development, production, and use.

16 **SEC. 4206. ENHANCED GEOTHERMAL SYSTEMS RESEARCH**
17 **AND DEVELOPMENT.**

18 (a) IN GENERAL.—The Secretary shall support a
19 program of research, development, demonstration, and
20 commercial application for enhanced geothermal systems,
21 including the programs described in subsection (b).

22 (b) PROGRAMS.—

23 (1) ENHANCED GEOTHERMAL SYSTEMS TECH-
24 NOLOGIES.—The Secretary shall support a program
25 of research, development, demonstration, and com-

1 mercial application of the technologies and knowl-
2 edge necessary for enhanced geothermal systems to
3 advance to a state of commercial readiness, includ-
4 ing advances in—

5 (A) reservoir stimulation;

6 (B) reservoir characterization, monitoring,
7 and modeling;

8 (C) stress mapping;

9 (D) tracer development;

10 (E) three-dimensional tomography;

11 (F) understanding seismic effects of res-
12 ervoir engineering and stimulation; and

13 (G) laser-based drilling technology.

14 (2) ENHANCED GEOTHERMAL SYSTEMS RES-
15 ERVOIR STIMULATION.—

16 (A) PROGRAM.—In collaboration with in-
17 dustry partners, the Secretary shall support a
18 program of research, development, and dem-
19 onstration of enhanced geothermal systems res-
20 ervoir stimulation technologies and techniques.
21 A minimum of 5 sites shall be selected in loca-
22 tions that show particular promise for enhanced
23 geothermal systems development. Each site
24 shall—

- 1 (i) represent a different class of sub-
2 surface geologic environments; and
3 (ii) take advantage of an existing site
4 where subsurface characterization has been
5 conducted or existing drill holes can be uti-
6 lized, if possible.

7 (B) CONSIDERATION OF EXISTING
8 SITES.—The following 2 sites, where Depart-
9 ment of Energy and industry cooperative en-
10 hanced geothermal systems projects are already
11 underway, may be considered for inclusion
12 among the sites selected under subparagraph
13 (A):

14 (i) Desert Peak, Nevada.

15 (ii) Coso, California.

16 **SEC. 4207. GEOTHERMAL ENERGY PRODUCTION FROM OIL**
17 **AND GAS FIELDS AND RECOVERY AND PRO-**
18 **DUCTION OF GEOPRESSURED GAS RE-**
19 **SOURCES.**

20 (a) IN GENERAL.—The Secretary shall establish a
21 program of research, development, demonstration, and
22 commercial application to support development of geo-
23 thermal energy production from oil and gas fields and pro-
24 duction and recovery of energy from geopressured re-
25 sources. In addition, the Secretary shall conduct such sup-

1 porting activities including research, resource character-
2 ization, and technology development as necessary.

3 (b) GEOTHERMAL ENERGY PRODUCTION FROM OIL
4 AND GAS FIELDS.—The Secretary shall implement a
5 grant program in support of geothermal energy production
6 from oil and gas fields. The program shall include grants
7 for a total of not less than three demonstration projects
8 of the use of geothermal techniques such as organic
9 rankine cycle systems at marginal, unproductive, and pro-
10 ductive oil and gas wells. The Secretary shall, to the extent
11 practicable and in the public interest, make awards that—

12 (1) include not less than five oil or gas well
13 sites per project award;

14 (2) use a range of oil or gas well hot water
15 source temperatures from 150 degrees Fahrenheit to
16 300 degrees Fahrenheit;

17 (3) cover a range of sizes up to one megawatt;

18 (4) are located at a range of sites;

19 (5) can be replicated at a wide range of sites;

20 (6) facilitate identification of optimum tech-
21 niques among competing alternatives;

22 (7) include business commercialization plans
23 that have the potential for production of equipment
24 at high volumes and operation and support at a
25 large number of sites; and

1 (8) satisfy other criteria that the Secretary de-
2 termines are necessary to carry out the program and
3 collect necessary data and information.

4 The Secretary shall give preference to assessments that
5 address multiple elements contained in paragraphs (1)
6 through (8).

7 (c) GRANT AWARDS.—Each grant award for dem-
8 onstration of geothermal technology such as organic
9 rankine cycle systems at oil and gas wells made by the
10 Secretary under subsection (b) shall include—

11 (1) necessary and appropriate site engineering
12 study;

13 (2) detailed economic assessment of site specific
14 conditions;

15 (3) appropriate feasibility studies to determine
16 whether the demonstration can be replicated;

17 (4) design or adaptation of existing technology
18 for site specific circumstances or conditions;

19 (5) installation of equipment, service, and sup-
20 port;

21 (6) operation for a minimum of one year and
22 monitoring for the duration of the demonstration;
23 and

24 (7) validation of technical and economic as-
25 sumptions and documentation of lessons learned.

1 (d) GEOPRESSURED GAS RESOURCE RECOVERY AND
2 PRODUCTION.—(1) The Secretary shall implement a pro-
3 gram to support the research, development, demonstra-
4 tion, and commercial application of cost-effective tech-
5 niques to produce energy from geopressured resources sit-
6 uated in and near the Gulf of Mexico.

7 (2) The Secretary shall solicit preliminary engineer-
8 ing designs for geopressured resources production and re-
9 covery facilities.

10 (3) Based upon a review of the preliminary designs,
11 the Secretary shall award grants, which may be cost-
12 shared, to support the detailed development and comple-
13 tion of engineering, architectural and technical plans need-
14 ed to support construction of new designs.

15 (4) Based upon a review of the final design plans
16 above, the Secretary shall award cost-shared development
17 and construction grants for demonstration geopressured
18 production facilities that show potential for economic re-
19 covery of the heat, kinetic energy and gas resources from
20 geopressured resources.

21 (e) COMPETITIVE GRANT SELECTION.—Not less than
22 90 days after the date of the enactment of this Act, the
23 Secretary shall conduct a national solicitation for applica-
24 tions for grants under the programs outlined in sub-
25 sections (b) and (d). Grant recipients shall be selected on

1 a competitive basis based on criteria in the respective sub-
2 section.

3 (f) WELL DRILLING.—No funds may be used under
4 this section for the purpose of drilling new wells.

5 **SEC. 4208. COST SHARING AND PROPOSAL EVALUATION.**

6 (a) FEDERAL SHARE.—(1) The Federal share of
7 costs of projects funded under this subtitle shall be in ac-
8 cordance with section 988 of the Energy Policy Act of
9 2005.

10 (2) The Secretary may waive the Federal cost share
11 requirement for grants awarded to universities, national
12 laboratories, or similar noncommercial entities awarded
13 grants under this subtitle.

14 (3) The Secretary shall allow for a competitive bid-
15 ding process to play a role in determining the final cost-
16 share ratio.

17 (b) ORGANIZATION AND ADMINISTRATION OF PRO-
18 GRAMS.—Programs under this subtitle shall incorporate
19 the following organizational and administrative elements:

20 (1) Non-Federal participants shall be chosen
21 through a competitive selection process.

22 (2) The request for proposals for each program
23 shall stipulate, at a minimum, the following:

24 (A) The non-Federal funding requirements
25 for projects.

1 (B) The funding mechanism to be used
2 (i.e. grants, contracts, or cooperative agree-
3 ments).

4 (C) Milestones and a schedule for comple-
5 tion.

6 (D) Criteria for evaluating proposals.

7 (3) In evaluating proposals, the Secretary shall
8 give priority to proposals that draw on relevant ex-
9 pertise from industry, academia, and the national
10 laboratories, as appropriate.

11 (4) The Secretary shall coordinate with, and
12 where appropriate may provide funds in furtherance
13 of the purposes of this subtitle to, other Department
14 of Energy research and development programs fo-
15 cused on drilling, subsurface characterization, and
16 other related technologies.

17 (5) In evaluating proposals, the Secretary shall
18 consult with relevant experts from industry, aca-
19 demia, and the national laboratories, as appropriate.

20 (6) In evaluating proposals, the Secretary shall
21 give priority to proposals that demonstrate clear evi-
22 dence of employing a systems approach.

23 (7) In evaluating proposals for projects with a
24 field component, the Secretary shall, where appro-
25 priate, give priority consideration to proposals that

1 contain provisions to study local environmental im-
2 pacts of the technologies developed or the operations
3 undertaken.

4 (8) In evaluating proposals, the Secretary, in
5 coordination with other appropriate agencies, shall
6 seek to ensure that no funding authorized under this
7 subtitle is awarded to any project that would result
8 in adverse impacts to land, water, or other resources
9 within the National Wilderness Preservation System,
10 the National Park System, the National Wildlife
11 Refuge System, the National Landscape Conserva-
12 tion System, the National Wild and Scenic Rivers
13 System, the National Trails System, any National
14 Monument, any Wilderness Study Area, any Re-
15 search Natural Area, any National Marine Sanc-
16 tuary, any Inventoried Roadless Area, or any Area
17 of Critical Environmental Concern.

18 (9) Scientific data collected as a result of any
19 project supported with funds provided under this
20 subtitle shall be made available to the public.

21 **SEC. 4209. CENTERS FOR GEOTHERMAL TECHNOLOGY**
22 **TRANSFER.**

23 (a) IN GENERAL.—The Secretary shall award grants
24 to institutions of higher education (or consortia thereof)

1 to establish 2 Centers for Geothermal Technology Trans-
2 fer.

3 (b) CENTERS.—

4 (1) HYDROTHERMAL CENTER.—The purpose of
5 one Technology Transfer Center shall be to serve as
6 an information clearinghouse for the geothermal in-
7 dustry, collecting and disseminating information on
8 best practices in all areas related to developing and
9 managing hydrothermal resources, including data
10 available for disclosure as provided under section
11 4208(b)(9). This Center shall be based at the insti-
12 tution west of the Rocky Mountains that the Sec-
13 retary considers to be best suited to the purpose.
14 The Center shall collect and disseminate information
15 on all subjects germane to the development and user
16 of hydrothermal systems, including—

17 (A) resource location;

18 (B) reservoir characterization, monitoring,
19 and modeling;

20 (C) drilling techniques;

21 (D) reservoir management techniques; and

22 (E) technologies for electric power conver-
23 sion or direct use of geothermal energy.

24 (2) ENHANCED GEOTHERMAL SYSTEMS CEN-
25 TER.—The purpose of a second Technology Transfer

1 Center shall be to serve as an information clearing-
2 house for the geothermal industry, collecting and
3 disseminating information on best practices in all
4 areas related to developing and managing enhanced
5 geothermal systems resources, including data avail-
6 able for disclosure as provided under section
7 4208(b)(9). This Center is encouraged to seek op-
8 portunities to coordinate efforts and share informa-
9 tion with international partners engaged in research
10 and development of enhanced geothermal systems or
11 engaged in collection of data related to enhanced
12 geothermal systems development. This Center shall
13 be based at an academic institution east of the
14 Rocky Mountains which, in the opinion of the Sec-
15 retary, is best suited to provide national leadership
16 on enhanced geothermal systems-related issues. The
17 Center shall collect and disseminate information on
18 all subjects germane to the development and use of
19 enhanced geothermal systems.

20 (c) AWARD DURATION.—An award made by the Sec-
21 retary under this section shall be for an initial period of
22 5 years, and may be renewed for additional 5-year periods
23 on the basis of—

- 1 (1) satisfactory performance in meeting the
- 2 goals of the research plan proposed by the Center;
- 3 and
- 4 (2) other requirements as specified by the Sec-
- 5 retary.

6 **SEC. 4210. GEOPOWERING AMERICA.**

7 The Secretary shall expand the Department of Ener-
8 gy's GeoPowering the West program to extend its geo-
9 thermal technology transfer activities throughout the en-
10 tire United States. The program shall be renamed
11 "GeoPowering America". The program shall continue to
12 be based in the Department of Energy office in Golden,
13 Colorado.

14 **SEC. 4211. EDUCATIONAL PILOT PROGRAM.**

15 The Secretary shall seek to award grant funding, on
16 a competitive basis, to an institution of higher education
17 for a geothermal-powered energy generation facility on the
18 institution's campus. The purpose of the facility shall be
19 to provide electricity and space heating. The facility shall
20 also serve as an educational resource to students in rel-
21 evant fields of study, and the data generated by the facility
22 shall be available to students and the general public. The
23 total funding award shall not exceed \$2,000,000.

1 **SEC. 4212. REPORTS.**

2 (a) REPORTS ON ADVANCED USES OF GEOTHERMAL
3 ENERGY.—Not later than 1 year, 3 years, and 5 years,
4 after the date of enactment of this Act, the Secretary shall
5 report to the Committee on Science and Technology of the
6 House of Representatives and the Committee on Energy
7 and Natural Resources of the Senate on advanced con-
8 cepts and technologies to maximize the geothermal re-
9 source potential of the United States. The reports shall
10 include—

11 (1) the use of carbon dioxide as an alternative
12 geofluid with potential carbon sequestration benefits;

13 (2) mineral recovery from geofluids;

14 (3) use of geothermal energy to produce hydro-
15 gen;

16 (4) use of geothermal energy to produce
17 biofuels;

18 (5) use of geothermal heat for oil recovery from
19 oil shales and tar sands; and

20 (6) other advanced geothermal technologies, in-
21 cluding advanced drilling technologies and advanced
22 power conversion technologies.

23 (b) PROGRESS REPORTS.—(1) Not later than 36
24 months after the date of enactment of this Act, the Sec-
25 retary shall submit to the Committee on Science and Tech-
26 nology of the House of Representatives and the Committee

1 on Energy and Natural Resources of the Senate an in-
2 terim report describing the progress made under this sub-
3 title. At the end of 60 months, the Secretary shall submit
4 to Congress a report on the results of projects undertaken
5 under this subtitle and other such information the Sec-
6 retary considers appropriate.

7 (2) As necessary, the Secretary shall report to the
8 Congress on any legal, regulatory, or other barriers en-
9 countered that hinder economic development of these re-
10 sources, and provide recommendations on legislative or
11 other actions needed to address such impediments.

12 **SEC. 4213. APPLICABILITY OF OTHER LAWS.**

13 Nothing in this subtitle shall be construed as waiving
14 the applicability of any requirement under any environ-
15 mental or other Federal or State law.

16 **SEC. 4214. AUTHORIZATION OF APPROPRIATIONS.**

17 There are authorized to be appropriated to the Sec-
18 retary to carry out this subtitle \$90,000,000 for each of
19 the fiscal years 2008 through 2012, of which \$10,000,000
20 for each fiscal year shall be for carrying out section 4207.
21 There are also authorized to be appropriated to the Sec-
22 retary for the Intermountain West Geothermal Consor-
23 tium \$5,000,000 for each of the fiscal years 2008 through
24 2012.

1 **Subtitle D—Solar Energy**

2 **PART 1—RESEARCH AND ADVANCEMENT**

3 **SEC. 4301. SHORT TITLE.**

4 This subtitle may be cited as the “Solar Energy Re-
5 search and Advancement Act of 2007”.

6 **SEC. 4302. DEFINITIONS.**

7 For purposes of this part:

8 (1) The term “Department” means the Depart-
9 ment of Energy.

10 (2) The term “Secretary” means the Secretary
11 of Energy.

12 **SEC. 4303. THERMAL ENERGY STORAGE RESEARCH AND**
13 **DEVELOPMENT PROGRAM.**

14 (a) ESTABLISHMENT.—The Secretary shall establish
15 a program of research and development to provide lower
16 cost and more viable thermal energy storage technologies
17 to enable the shifting of electric power loads on demand
18 and extend the operating time of concentrating solar
19 power electric generating plants.

20 (b) AUTHORIZATION OF APPROPRIATIONS.—There
21 are authorized to be appropriated to the Secretary for car-
22 rying out this section \$5,000,000 for fiscal year 2008,
23 \$7,000,000 for fiscal year 2009, \$9,000,000 for fiscal year
24 2010, \$10,000,000 for fiscal year 2011, and \$12,000,000
25 for fiscal year 2012.

1 **SEC. 4304. CONCENTRATING SOLAR POWER COMMERCIAL**
2 **APPLICATION STUDIES.**

3 (a) INTEGRATION.—The Secretary shall conduct a
4 study on methods to integrate concentrating solar power
5 into regional electricity transmission systems, and to iden-
6 tify new transmission or transmission upgrades needed to
7 bring electricity from high concentrating solar power re-
8 source areas to growing electric power load centers
9 throughout the United States. The study shall analyze and
10 assess cost-effective approaches for management and
11 large-scale integration of concentrating solar power into
12 regional electric transmission grids to improve electric reli-
13 ability, to efficiently manage load, and to reduce demand
14 on the natural gas transmission system for electric power.
15 The Secretary shall submit a report to Congress on the
16 results of this study not later than 12 months after the
17 date of enactment of this Act.

18 (b) WATER CONSUMPTION.—Not later than 6
19 months after the date of the enactment of this Act, the
20 Secretary of Energy shall transmit to Congress a report
21 on the results of a study on methods to reduce the amount
22 of water consumed by concentrating solar power systems.

23 **SEC. 4305. SOLAR ENERGY CURRICULUM DEVELOPMENT**
24 **AND CERTIFICATION GRANTS.**

25 (a) ESTABLISHMENT.—The Secretary shall establish
26 in the Office of Solar Energy Technologies a competitive

1 grant program to create and strengthen solar industry
2 workforce training and internship programs in installa-
3 tion, operation, and maintenance of solar energy products.
4 The goal of this program is to ensure a supply of well-
5 trained individuals to support the expansion of the solar
6 energy industry.

7 (b) AUTHORIZED ACTIVITIES.—Grant funds may be
8 used to support the following activities:

9 (1) Creation and development of a solar energy
10 curriculum appropriate for the local educational, en-
11 trepreneurial, and environmental conditions, includ-
12 ing curriculum for community colleges.

13 (2) Support of certification programs, such as
14 the North American Board of Certified Energy
15 Practitioners, for individual solar energy system in-
16 stallers, instructors, and training programs.

17 (3) Internship programs that provide hands-on
18 participation by students in commercial applications.

19 (4) Activities required to obtain certification of
20 training programs and facilities by the Institute of
21 Sustainable Power or an equivalent industry-accept-
22 ed quality-control certification program.

23 (5) Incorporation of solar-specific learning mod-
24 ules into traditional occupational training and in-
25 ternship programs for construction-related trades.

1 (6) The purchase of equipment necessary to
2 carry out activities under this section.

3 (7) Support of programs that provide guidance
4 and updates to solar energy curriculum instructors.

5 (c) ADMINISTRATION OF GRANTS.—Grants may be
6 awarded under this section for up to 3 years. The Sec-
7 retary shall award grants to ensure sufficient geographic
8 distribution of training programs nationally. Grants shall
9 only be awarded for programs certified by the Institute
10 of Sustainable Power or an equivalent industry-accepted
11 quality-control certification institution, or for new and
12 growing programs with a credible path to certification.
13 Due consideration shall be given to women, underrep-
14 resented minorities, and persons with disabilities.

15 (d) REPORT.—The Secretary shall make public, via
16 the website of the Department or upon request, informa-
17 tion on the name and institution for all grants awarded
18 under this section, including a brief description of the
19 project as well as the grant award amount.

20 (e) AUTHORIZATION OF APPROPRIATIONS.—There
21 are authorized to be appropriated to the Secretary for car-
22 rying out this section \$10,000,000 for each of the fiscal
23 years 2008 through 2012.

1 **SEC. 4306. DAYLIGHTING SYSTEMS AND DIRECT SOLAR**
2 **LIGHT PIPE TECHNOLOGY.**

3 (a) ESTABLISHMENT.—The Secretary shall establish
4 a program of research and development to provide assist-
5 ance in the demonstration and commercial application of
6 direct solar renewable energy sources to provide alter-
7 natives to traditional power generation for lighting and il-
8 lumination, including light pipe technology, and to pro-
9 mote greater energy conservation and improved efficiency.
10 All direct solar renewable energy devices supported under
11 this program shall have the capability to provide measur-
12 able data on the amount of kilowatt-hours saved over the
13 traditionally powered light sources they have replaced.

14 (b) REPORTING.—The Secretary shall transmit to
15 Congress an annual report assessing the measurable data
16 derived from each project in the direct solar renewable en-
17 ergy sources program and the energy savings resulting
18 from its use.

19 (c) DEFINITIONS.—For purposes of this section—

20 (1) the term “direct solar renewable energy”
21 means energy from a device that converts sunlight
22 into useable light within a building, tunnel, or other
23 enclosed structure, replacing artificial light gen-
24 erated by a light fixture and doing so without the
25 conversion of the sunlight into another form of en-
26 ergy; and

1 (2) the term “light pipe” means a device de-
2 signed to transport visible solar radiation from its
3 collection point to the interior of a building while ex-
4 cluding interior heat gain in the nonheating season.

5 (d) AUTHORIZATION OF APPROPRIATIONS.—There
6 are authorized to be appropriated to the Secretary for car-
7 rying out this section \$3,500,000 for each of the fiscal
8 years 2008 through 2012.

9 **SEC. 4307. SOLAR AIR CONDITIONING RESEARCH AND DE-**
10 **VELOPMENT PROGRAM.**

11 (a) ESTABLISHMENT.—The Secretary shall establish
12 a research, development, and demonstration program to
13 promote less costly and more reliable decentralized distrib-
14 uted solar-powered air conditioning for individuals and
15 businesses.

16 (b) AUTHORIZED ACTIVITIES.—Grants made avail-
17 able under this section may be used to support the fol-
18 lowing activities:

19 (1) Advancing solar thermal collectors, includ-
20 ing concentrating solar thermal and electric systems,
21 flat plate and evacuated tube collector performance.

22 (2) Achieving technical and economic integra-
23 tion of solar-powered distributed air-conditioning
24 systems with existing hot water and storage systems
25 for residential applications.

1 (3) Designing and demonstrating mass manu-
2 facturing capability to reduce costs of modular
3 standardized solar-powered distributed air condi-
4 tioning systems and components.

5 (4) Improving the efficiency of solar-powered
6 distributed air-conditioning to increase the effective-
7 ness of solar-powered absorption chillers, solar-driv-
8 en compressors and condensers, and cost-effective
9 precooling approaches.

10 (5) Researching and comparing performance of
11 solar-powered distributed air conditioning systems in
12 different regions of the country, including potential
13 integration with other onsite systems, such as solar,
14 biogas, geothermal heat pumps, and propane assist
15 or combined propane fuel cells, with a goal to de-
16 velop site-specific energy production and manage-
17 ment systems that ease fuel and peak utility loading.

18 (c) COST SHARING.—The non-Federal share of re-
19 search and development projects supported under this sec-
20 tion shall be not less than 20 percent, and for demonstra-
21 tion projects shall be not less than 50 percent.

22 (d) AUTHORIZATION OF APPROPRIATIONS.—There
23 are authorized to be appropriated to the Secretary for car-
24 rying out this section \$2,500,000 for each of the fiscal
25 years 2008 through 2012.

1 **SEC. 4308. PHOTOVOLTAIC DEMONSTRATION PROGRAM.**

2 (a) IN GENERAL.—The Secretary shall establish a
3 program of grants to States to demonstrate advanced pho-
4 tovoltaic technology.

5 (b) REQUIREMENTS.—

6 (1) ABILITY TO MEET REQUIREMENTS.—To re-
7 ceive funding under the program under this section,
8 a State must submit a proposal that demonstrates,
9 to the satisfaction of the Secretary, that the State
10 will meet the requirements of subsection (f).

11 (2) COMPLIANCE WITH REQUIREMENTS.—If a
12 State has received funding under this section for the
13 preceding year, the State must demonstrate, to the
14 satisfaction of the Secretary, that it complied with
15 the requirements of subsection (f) in carrying out
16 the program during that preceding year, and that it
17 will do so in the future, before it can receive further
18 funding under this section.

19 (3) FUNDING ALLOCATION.—Each State sub-
20 mitting a qualifying proposal shall receive funding
21 under the program based on the proportion of
22 United States population in the State according to
23 the 2000 census. In each fiscal year, the portion of
24 funds attributable under this paragraph to States
25 that have not submitted qualifying proposals in the
26 time and manner specified by the Secretary shall be

1 distributed pro rata to the States that have sub-
2 mitted qualifying proposals in the specified time and
3 manner.

4 (c) COMPETITION.—If more than \$25,000,000 is
5 available for the program under this section for any fiscal
6 year, the Secretary shall allocate 75 percent of the total
7 amount of funds available according to subsection (b)(3),
8 and shall award the remaining 25 percent on a competitive
9 basis to the States with the proposals the Secretary con-
10 siderers most likely to encourage the widespread adoption
11 of photovoltaic technologies.

12 (d) PROPOSALS.—Not later than 6 months after the
13 date of enactment of this Act, and in each subsequent fis-
14 cal year for the life of the program, the Secretary shall
15 solicit proposals from the States to participate in the pro-
16 gram under this section.

17 (e) COMPETITIVE CRITERIA.—In awarding funds in
18 a competitive allocation under subsection (c), the Sec-
19 retary shall consider—

- 20 (1) the likelihood of a proposal to encourage the
21 demonstration of, or lower the costs of, advanced
22 photovoltaic technologies; and
23 (2) the extent to which a proposal is likely to—
24 (A) maximize the amount of photovoltaics
25 demonstrated;

1 (B) maximize the proportion of non-Fed-
2 eral cost share; and

3 (C) limit State administrative costs.

4 (f) STATE PROGRAM.—A program operated by a
5 State with funding under this section shall provide com-
6 petitive awards for the demonstration of advanced photo-
7 voltaic technologies. Each State program shall—

8 (1) require a contribution of at least 60 percent
9 per award from non-Federal sources, which may in-
10 clude any combination of State, local, and private
11 funds, except that at least 10 percent of the funding
12 must be supplied by the State;

13 (2) endeavor to fund recipients in the commer-
14 cial, industrial, institutional, governmental, and resi-
15 dential sectors;

16 (3) limit State administrative costs to no more
17 than 10 percent of the grant;

18 (4) report annually to the Secretary on—

19 (A) the amount of funds disbursed;

20 (B) the amount of photovoltaics purchased;

21 and

22 (C) the results of the monitoring under
23 paragraph (5);

24 (5) provide for measurement and verification of
25 the output of a representative sample of the

1 photovoltaics systems demonstrated throughout the
2 average working life of the systems, or at least 20
3 years; and

4 (6) require that applicant buildings must have
5 received an independent energy efficiency audit dur-
6 ing the 6-month period preceding the filing of the
7 application.

8 (g) UNEXPENDED FUNDS.—If a State fails to expend
9 any funds received under subsection (b) or (c) within 3
10 years of receipt, such remaining funds shall be returned
11 to the Treasury.

12 (h) REPORTS.—The Secretary shall report to Con-
13 gress 5 years after funds are first distributed to the States
14 under this section—

15 (1) the amount of photovoltaics demonstrated;

16 (2) the number of projects undertaken;

17 (3) the administrative costs of the program;

18 (4) the amount of funds that each State has
19 not received because of a failure to submit a quali-
20 fying proposal, as described in subsection (b)(3);

21 (5) the results of the monitoring under sub-
22 section (f)(5); and

23 (6) the total amount of funds distributed, in-
24 cluding a breakdown by State.

1 (i) AUTHORIZATION OF APPROPRIATIONS.—There
2 are authorized to be appropriated to the Secretary for the
3 purposes of carrying out this section—

4 (1) \$15,000,000 for fiscal year 2008;

5 (2) \$30,000,000 for fiscal year 2009;

6 (3) \$45,000,000 for fiscal year 2010;

7 (4) \$60,000,000 for fiscal year 2011; and

8 (5) \$70,000,000 for fiscal year 2012.

9 **PART 2—DEVELOPMENT AND USE OF SOLAR**

10 **ENERGY PRODUCTS**

11 **SEC. 4311. DEFINITIONS.**

12 For purposes of this part:

13 (1) The term “Board” means the Solar Energy
14 Industries Research and Promotion Board estab-
15 lished under section 4312(b)(1).

16 (2) The term “Committee” means the Solar
17 Energy Research and Promotion Operating Com-
18 mittee established under section 4312(b)(4).

19 (3) The term “Department” means the Depart-
20 ment of Energy.

21 (4) The term “importer” means any person
22 who imports solar energy products from outside the
23 United States.

1 (5) The term “order” means a solar energy
2 product research and promotion order issued under
3 section 4312.

4 (6) The term “promotion” means any action to
5 advance the image and desirability of solar energy
6 products with the express intent of improving the
7 competitive position and stimulating sales of solar
8 energy products in the marketplace.

9 (7) The term “Secretary” means the Secretary
10 of Energy.

11 (8) The term “solar energy products” means
12 solar water heating components and systems and
13 photovoltaic components and systems.

14 **SEC. 4312. SOLAR RESEARCH AND INFORMATION PRO-**
15 **GRAM.**

16 (a) ISSUANCE OF ORDERS.—

17 (1) PROPOSED ORDER.—Not later than 30 days
18 after receipt of a proposal for a solar energy product
19 research and promotion order, the Secretary shall
20 publish such proposed order and give due notice and
21 opportunity for public comment on such proposed
22 order. Such proposal may be submitted by any orga-
23 nization meeting the requirements for certification
24 under section 4313 or any interested person, includ-
25 ing the Secretary.

1 (2) FINAL ORDER.—After notice and oppor-
2 tunity for public comment are given, as provided for
3 in paragraph (1), the Secretary shall issue a solar
4 energy product research and promotion order. The
5 order shall become effective not later than 120 days
6 after publication of the proposed order.

7 (b) REQUIRED TERMS IN ORDERS.—An order issued
8 under subsection (a) shall contain the following terms and
9 conditions:

10 (1) The order shall provide for the establish-
11 ment and selection of a Solar Energy Industries Re-
12 search and Promotion Board. In addition to non-
13 permanent members of the Board, there shall be two
14 permanent members of the Board, a representative
15 chosen by the Secretary and a representative chosen
16 by one of the organizations certified under section
17 4313. Nonpermanent members of the Board shall be
18 solar energy products producers and importers ap-
19 pointed by the Secretary from—

20 (A) nominations submitted by eligible or-
21 ganizations certified under section 4313; and

22 (B) nominations submitted by importers
23 under such procedures as the Secretary deter-
24 mines appropriate.

1 The Secretary shall ensure adequate representation
2 of all geographic regions of the United States on the
3 Board.

4 (2) The order shall define the powers and du-
5 ties of the Board, which shall be exercised at an an-
6 nual meeting, and shall include only the following
7 powers:

8 (A) To administer the order in accordance
9 with its terms and provisions.

10 (B) To make rules and regulations to ef-
11 fectuate the terms and provisions of the order.

12 (C) To elect members of the Board to
13 serve on the Committee.

14 (D) To approve or disapprove budgets sub-
15 mitted by the Committee.

16 (E) To receive, investigate, and report to
17 the Secretary complaints of violations of the
18 order.

19 (F) To recommend to the Secretary
20 amendments to the order. In addition, the order
21 shall determine the circumstances under which
22 special meetings of the Board may be held.

23 (3) The order shall provide that the term of ap-
24 pointment for nonpermanent members of the Board
25 shall be 3 years with no nonpermanent member serv-

1 ing more than 2 consecutive terms, except that ini-
2 tial appointments shall be proportionately for 1-year,
3 2-year, and 3-year terms; and that Board members
4 shall serve without compensation, but shall be reim-
5 bursed for their reasonable expenses incurred in per-
6 forming their duties as members of the Board.

7 (4)(A) The order shall provide that the Board
8 shall elect from its membership 10 members to serve
9 on the Solar Energy Research and Promotion Oper-
10 ating Committee.

11 (B) The Committee shall develop plans or
12 projects of research, information, and promotion
13 which shall be paid for with assessments collected by
14 the Board. In developing plans or projects, the Com-
15 mittee shall, to the extent practicable, ensure that
16 all segments of the solar industry receive fair treat-
17 ment under this part based upon contributions made
18 under paragraph (8).

19 (C) The Committee shall be responsible for de-
20 veloping and submitting to the Board, for its ap-
21 proval, budgets on a fiscal year basis of its antici-
22 pated expenses and disbursements, including prob-
23 able costs of research, promotion, and information
24 projects. The Board shall approve or disapprove

1 such budgets and, if approved, shall submit such
2 budget to the Secretary for the Secretary's approval.

3 (D) The total costs of collection of assessments
4 and administrative staff incurred by the Board dur-
5 ing any fiscal year shall not exceed 5 percent of the
6 projected total assessments to be collected by the
7 Board for such fiscal year. The Board shall use, to
8 the extent possible, the resources, staffs, and facili-
9 ties of existing organizations.

10 (5) The order shall provide that terms of ap-
11 pointment to the Committee shall be 1 year, and
12 that no person may serve on the Committee for
13 more than 6 consecutive terms. Committee members
14 shall serve without compensation, but shall be reim-
15 bursed for their reasonable expenses incurred in per-
16 forming their duties as members of the Committee.
17 The Committee may utilize the resources, staffs, and
18 facilities of the Board and industry organizations.
19 An employee of an industry organization may not re-
20 ceive compensation for work performed for the Com-
21 mittee, but shall be reimbursed from assessments
22 collected by the Board for reasonable expenses in-
23 curred in performing such work.

24 (6) The order shall provide that, to ensure co-
25 ordination and efficient use of funds, the Committee

1 shall enter into contracts or agreements for imple-
2 menting and carrying out the activities authorized
3 by this part with established national nonprofit in-
4 dustry-governed organizations to implement pro-
5 grams of research, promotion, and information. In
6 any fiscal year, the total assessments available for
7 spending for this program (including administrative
8 expenses under paragraph (4)(D)) shall not exceed
9 50 percent of the projected total assessments for
10 that year. Any such contract or agreement shall pro-
11 vide that—

12 (A) the person entering the contract or
13 agreement shall develop and submit to the
14 Committee a plan or project together with a
15 budget or budgets that shows estimated costs to
16 be incurred for the plan or project;

17 (B) the plan or project shall become effec-
18 tive on the approval of the Secretary; and

19 (C) the person entering the contract or
20 agreement shall keep accurate records of all of
21 its transactions, account for funds received and
22 expended, and make periodic reports to the
23 Committee of activities conducted, and such
24 other reports as the Secretary, the Board, or
25 the Committee may require.

1 (7) The order shall require the Board and the
2 Committee to—

3 (A) maintain such books and records,
4 which shall be available to the Secretary for in-
5 spection and audit, as the Secretary may pre-
6 scribe;

7 (B) prepare and submit to the Secretary,
8 from time to time, such reports as the Sec-
9 retary may prescribe; and

10 (C) account for the receipt and disburse-
11 ment of all funds entrusted to them.

12 (8)(A) The order shall provide that each manu-
13 facturer of a solar energy product shall collect an as-
14 sessment and pay the assessment to the Board.

15 (B) The order also shall provide that each im-
16 porter of solar energy products shall pay an assess-
17 ment, in the manner prescribed by the order, to the
18 Board.

19 (C) The assessments shall be used for payment
20 of the costs of plans and projects, as provided for in
21 paragraph (4), and expenses in administering the
22 order, including more administrative costs incurred
23 by the Secretary after the order has been promul-
24 gated under this part, and to establish a reasonable
25 reserve. The rate of assessment prescribed by the

1 order shall be determined by the Secretary in con-
2 sultation with the Solar Energy Industry Associa-
3 tion.

4 (9) The order shall provide that the Board,
5 with the approval of the Secretary, may invest,
6 pending disbursement, funds collected through as-
7 sessments only in obligations of the United States or
8 any agency thereof, in any interest-bearing account
9 or certificate of deposit of a bank that is a member
10 of the Federal Reserve System, or in obligations
11 fully guaranteed as to principal and interest by the
12 United States.

13 (10) The order shall prohibit any funds col-
14 lected by the Board under the order from being used
15 in any manner for the purpose of influencing govern-
16 mental action or policy, with the exception of recom-
17 mending amendments to the order.

18 (11)(A) The order shall require that each man-
19 ufacturer or importer making payment to the Board
20 maintain and make available for inspection such
21 books and records as may be required by the order
22 and file reports at the time, in the manner, and hav-
23 ing the content prescribed by the order. Such infor-
24 mation shall be made available to the Secretary as
25 is appropriate to the administration or enforcement

1 of this part. All information so obtained shall be
2 kept confidential by all officers and employees of the
3 Department, and only such information so obtained
4 as the Secretary deems relevant may be disclosed by
5 them and then only in a suit or administrative hear-
6 ing brought at the request of the Secretary, or to
7 which the Secretary or any officer of the United
8 States is a party, and involving the order. Nothing
9 in this paragraph may be deemed to prohibit—

10 (i) the issuance of general statements,
11 based on the reports, of the number of entities
12 subject to the order or statistical data collected
13 therefrom, which statements do not identify the
14 information furnished by an person; or

15 (ii) the publication, by direction of the Sec-
16 retary, of the name of any person violating the
17 order, together with a statement of the par-
18 ticular provisions of the order violated by the
19 person.

20 (B) No information obtained under the author-
21 ity of this part may be made available to any agency
22 or officer of the United States for any purpose other
23 than the implementation of this part and any inves-
24 tigatory or enforcement act necessary for the imple-
25 mentation of this part. Any person violating the pro-

visions of this paragraph shall be subject to a fine of not more than \$1,000, or to imprisonment for not more than one year, or both, and if an officer or employee of the Board or the Department, shall be removed from office.

(12) The order shall contain terms and conditions, not inconsistent with the provisions of this part, as necessary to effectuate the provisions of the order.

SEC. 4313. CERTIFICATION OF ORGANIZATIONS TO NOMI-
NATE.

(a) ELIGIBILITY.—The eligibility of any national, regional, or State organization to represent manufacturers and to participate in the making of nominations under section 4312(b) shall be certified by the Secretary. The Secretary shall certify any organization that the Secretary determines meets the eligibility criteria established under subsection (b), and such determination as to eligibility shall be final.

(b) CRITERIA.—An organization may be certified as described in subsection (a) if such organization meets all of the following eligibility criteria:

(1) The organization represents a majority of manufacturers of solar energy products in the Nation.

1 (2) The organization has a history of stability
2 and permanency.

3 (3) A primary purpose of the organization is to
4 promote the economic welfare of the solar energy
5 products industry.

6 (c) BASIS FOR CERTIFICATION.—Certification of an
7 organization shall be based upon a factual report sub-
8 mitted by the organization.

9 **SEC. 4314. REFERENDUM.**

10 (a) INITIAL REFERENDUM.—For the purpose of de-
11 termining whether the initial order shall be continued, not
12 later than 48 months after the issuance of the order (or
13 any earlier date recommended by the Board), the Sec-
14 retary shall conduct a referendum among persons who
15 have been manufacturers or importers of solar energy
16 products during a representative period, as determined by
17 the Secretary. The order shall be continued only if the
18 Secretary determines that it has been approved by not less
19 than a majority of the manufacturers voting in the ref-
20 erendum who, during a representative period as deter-
21 mined by the Secretary, have been engaged in the manu-
22 facturing of solar energy products. If continuation of the
23 order is not approved by a majority voting in the ref-
24 erendum, the Secretary shall terminate the collection of
25 assessments under the order within 6 months after the

1 Secretary determines that continuation of the order is not
2 favored by a majority voting in the referendum, and shall
3 terminate the order in an orderly manner as soon as prac-
4 ticable after such determination.

5 (b) SUBSEQUENT REFERENDA.—After the initial ref-
6 erendum, the Secretary may conduct a referendum on the
7 request of a representative group comprising 25 percent
8 or more of the number of manufacturers of solar energy
9 products to determine whether manufacturers favor the
10 termination or suspension of the order. The Secretary
11 shall suspend or terminate collection of assessments under
12 the order within 6 months after the Secretary determines
13 that suspension or termination of the order is favored by
14 a majority of the manufacturers voting in the referendum
15 who, during a representative period as determined by the
16 Secretary, have been engaged in the manufacture of solar
17 energy products, and shall terminate or suspend the order
18 in an orderly manner as soon as practicable after such
19 determination.

20 (c) PROCEDURES.—The Department shall be reim-
21 bursed from assessments collected by the Board for any
22 expenses incurred by the Department in connection with
23 conducting any referendum under this section, except for
24 the salaries of Government employees. Any referendum
25 conducted under this section shall be conducted on a date

1 established by the Secretary, whereby manufacturers shall
2 certify that they were engaged in the production of solar
3 energy products during the representative period and, on
4 the same day, shall be provided an opportunity to vote
5 in the referendum.

6 **SEC. 4315. REFUNDS.**

7 (a) IN GENERAL.—During the period prior to the ap-
8 proval of the continuation of an order pursuant to the ref-
9 erendum required under section 4314(a), subject to sub-
10 section (f) of this section, the Board shall—

11 (1) establish an escrow account to be used for
12 assessment refunds;

13 (2) place funds in such account in accordance
14 with subsection (b); and

15 (3) refund assessments to persons in accord-
16 ance with this section.

17 (b) AMOUNTS PLACED IN ACCOUNT.—Subject to sub-
18 section (f), the Board shall place in such account, from
19 assessments collected under section 4312 during the pe-
20 riod referred to in subsection (a), an amount equal to the
21 product obtained by multiplying the total amount of as-
22 sessments collected under section 4312 during such period
23 by 15 percent.

24 (c) FULL REFUND ELECTION.—Subject to sub-
25 sections (d), (e), and (f) and notwithstanding any other

1 provision of this part, any manufacturer or importer shall
2 have the right to demand and receive from the Board a
3 one-time refund of all assessments collected under section
4 4312 from such manufacturer or importer during the pe-
5 riod referred to in subsection (a) if such manufacturer or
6 importer—

7 (1) is responsible for paying such assessment;

8 and

9 (2) does not support the program established
10 under this part.

11 (d) PROCEDURE.—Such demand shall be made in ac-
12 cordance with regulations, on a form, and within a time
13 period prescribed by the Board.

14 (e) PROOF.—Such refund shall be made on submis-
15 sion of proof satisfactory to the Board that the manufac-
16 turer or importer—

17 (1) paid the assessment for which refund is
18 sought; and

19 (2) did not collect such assessment from an-
20 other manufacturer or importer.

21 (f) DISTRIBUTION.—If the amount in the escrow ac-
22 count required to be established by subsection (a) is not
23 sufficient to refund the total amount of assessments de-
24 manded by all eligible persons under this section, and the
25 continuation of an order is approved pursuant to the ref-

1 erendum required under section 4314(b), the Board
2 shall—

3 (1) continue to place in such account, from as-
4 assessments collected under section 4312, the amount
5 required under subsection (b), until such time as the
6 Board is able to comply with paragraph (2); and

7 (2) provide to all eligible persons the total
8 amount of assessments demanded by all eligible per-
9 sons under this section.

10 If the continuation of an order is not approved pursuant
11 to the referendum required under section 4314(b), the
12 Board shall prorate the amount of such refunds among
13 all eligible persons who demand such refund.

14 **SEC. 4316. ENFORCEMENT.**

15 (a) IN GENERAL.—If the Secretary believes that the
16 administration and enforcement of this part or an order
17 would be adequately served by such procedure, following
18 an opportunity for an administrative hearing on the
19 record, the Secretary may—

20 (1) issue an order to restrain or prevent a per-
21 son from violating an order; and

22 (2) assess a civil penalty of not more than
23 \$25,000 for violation of such order.

24 (b) JURISDICTION.—The district courts of the United
25 States are vested with jurisdiction specifically to enforce,

1 and to prevent and restrain a person from violating, an
2 order or regulation made or issued under this part.

3 (c) ATTORNEY GENERAL.—A civil action authorized
4 to be brought under this section shall be referred to the
5 Attorney General for appropriate action.

6 **SEC. 4317. INVESTIGATIONS.**

7 The Secretary may make such investigations as the
8 Secretary deems necessary for the effective administration
9 of this part or to determine whether any person subject
10 to this part has engaged or is about to engage in any act
11 that constitutes or will constitute a violation of this part,
12 the order, or any rule or regulation issued under this part.

13 **SEC. 4318. ADMINISTRATIVE PROVISION.**

14 The provisions of this part applicable to the order
15 shall be applicable to amendments to the order.

16 **Subtitle E—Biofuels**

17 **SEC. 4401. SHORT TITLE.**

18 This subtitle may be cited as the “Biofuels Research
19 and Development Enhancement Act”.

20 **SEC. 4402. BIOFUELS AND BIOREFINERY INFORMATION**
21 **CENTER.**

22 (a) IN GENERAL.—The Secretary of Energy (in this
23 subtitle referred to as the “Secretary”), in cooperation
24 with the Secretary of Agriculture, shall establish a tech-
25 nology transfer center to make available information on

1 research, development, and commercial application of
2 technologies related to biofuels and biorefineries, includ-
3 ing—

4 (1) biochemical and thermochemical conversion
5 technologies capable of making fuels from
6 lignocellulosic feedstocks;

7 (2) biotechnology processes capable of making
8 biofuels with an emphasis on development of bio-
9 refinery technologies using enzyme-based processing
10 systems;

11 (3) biogas collection and production tech-
12 nologies suitable for vehicular use;

13 (4) cost-effective reforming technologies that
14 produce hydrogen fuel from biogas sources;

15 (5) biogas production from cellulosic and recy-
16 cled organic waste sources and advancement of gas-
17 eous storage systems and advancement of gaseous
18 storage systems; and

19 (6) other advanced processes and technologies
20 that will enable the development of biofuels.

21 (b) ADMINISTRATION.—In administering this section,
22 the Secretary shall ensure that the center shall—

23 (1) continually update information provided by
24 the center;

1 (2) make information available on biotechnology
2 processes; and

3 (3) make information and assistance provided
4 by the center available for those involved in energy
5 research, development, demonstration, and commer-
6 cial application.

7 **SEC. 4403. BIOFUELS AND ADVANCED BIOFUELS INFRA-**
8 **STRUCTURE.**

9 Section 932 of the Energy Policy Act of 2005 (42
10 U.S.C. 16232) is amended by adding at the end the fol-
11 lowing new subsection:

12 “(f) BIOFUELS AND ADVANCED BIOFUELS INFRA-
13 STRUCTURE.—The Secretary, in consultation with the
14 Secretary of Transportation and the Assistant Adminis-
15 trator for Research and Development of the Environ-
16 mental Protection Agency, shall carry out a program of
17 research, development, and demonstration as it relates to
18 existing transportation fuel distribution infrastructure and
19 new alternative distribution infrastructure. The program
20 shall focus on the physical and chemical properties of
21 biofuels and efforts to prevent or mitigate against adverse
22 impacts of those properties in the following areas:

23 “(1) Corrosion of metal, plastic, rubber, cork,
24 fiberglass, glues, or any other material used in pipes
25 and storage tanks.

1 “(2) Dissolving of storage tank sediments.

2 “(3) Clogging of filters.

3 “(4) Contamination from water or other
4 adulterants or pollutants.

5 “(5) Poor flow properties related to low tem-
6 peratures.

7 “(6) Oxidative and thermal instability in long-
8 term storage and use.

9 “(7) Microbial contamination.

10 “(8) Problems associated with electrical conduc-
11 tivity.

12 “(9) Such other areas as the Secretary con-
13 siderers appropriate.”.

14 **SEC. 4404. BIODIESEL.**

15 (a) BIODIESEL STUDY.—Not later than 180 days
16 after the date of enactment of this Act, the Secretary shall
17 submit to Congress a report on any research and develop-
18 ment challenges inherent in increasing to 2.5 percent the
19 proportion of diesel fuel sold in the United States that
20 is biodiesel (within the meaning of section 211(o) of the
21 Clean Air Act).

22 (b) MATERIALS FOR THE ESTABLISHMENT OF
23 STANDARDS.—The Director of the National Institute of
24 Standards and Technology shall make publicly available
25 the physical property data and characterization of bio-

1 diesel, as is defined in subsection (a), in order to encour-
2 age the establishment of standards that will promote their
3 utilization in the transportation and fuel delivery system.

4 **SEC. 4405. BIOGAS.**

5 Not later than 180 days after the date of enactment
6 of this Act, the Secretary shall submit to Congress a re-
7 port on any research and development challenges inherent
8 in increasing to 5 percent of the transportation fuels sold
9 in the United States fuel with biogas or a blend of biogas
10 and natural gas.

11 **SEC. 4406. BIORESEARCH CENTERS FOR SYSTEMS BIOLOGY**
12 **PROGRAM.**

13 Section 977(a)(1) of the Energy Policy Act of 2005
14 (42 U.S.C. 16317(a)(1)) is amended by inserting before
15 the period at the end the following: “, including the estab-
16 lishment of at least 5 bioresearch centers of varying sizes,
17 as appropriate, that focus on biofuels, of which at least
18 1 center shall be located in each of the 5 Petroleum Ad-
19 ministration for Defense Districts, which shall be estab-
20 lished for a period of 5 years, after which the grantee may
21 reapply for selection on a competitive basis”.

22 **SEC. 4407. GRANTS FOR BIOFUEL PRODUCTION RESEARCH**
23 **AND DEVELOPMENT IN CERTAIN STATES.**

24 (a) IN GENERAL.—The Secretary shall provide
25 grants to eligible entities for research, development, dem-

1 onstration, and commercial application of biofuel produc-
2 tion technologies in States with low rates of ethanol pro-
3 duction, including low rates of production of cellulosic bio-
4 mass ethanol, as determined by the Secretary.

5 (b) ELIGIBILITY.—To be eligible to receive a grant
6 under this section, an entity shall—

7 (1)(A) be an institution of higher education (as
8 defined in section 2 of the Energy Policy Act of
9 2005 (42 U.S.C. 15801)) located in a State de-
10 scribed in subsection (a); or

11 (B) be a consortium including at least 1 such
12 institution of higher education, and industry, State
13 agencies, Indian tribal agencies, National Labora-
14 tories, or local government agencies located in the
15 State; and

16 (2) have proven experience and capabilities with
17 relevant technologies.

18 (c) AUTHORIZATION OF APPROPRIATIONS.—There
19 are authorized to be appropriated to the Secretary to carry
20 out this section \$25,000,000 for each of fiscal years 2008
21 through 2010.

22 **SEC. 4408. BIOREFINERY ENERGY EFFICIENCY.**

23 Section 932 of Energy Policy Act of 2005 (42 U.S.C.
24 16232), is amended by adding at the end the following
25 new subsections:

1 “(g) BIOREFINERY ENERGY EFFICIENCY.—The Sec-
 2 retary shall establish a program of research, development,
 3 demonstration, and commercial application for increasing
 4 energy efficiency and reducing energy consumption in the
 5 operation of biorefinery facilities.

6 “(h) RETROFIT TECHNOLOGIES FOR THE DEVELOP-
 7 MENT OF ETHANOL FROM CELLULOSIC MATERIALS.—
 8 The Secretary shall establish a program of research, devel-
 9 opment, demonstration, and commercial application on
 10 technologies and processes to enable biorefineries that ex-
 11 clusively use corn grain or corn starch as a feedstock to
 12 produce ethanol to be retrofitted to accept a range of bio-
 13 mass, including lignocellulosic feedstocks.”.

14 **SEC. 4409. STUDY OF INCREASED CONSUMPTION OF ETH-**
 15 **ANOL-BLENDED GASOLINE WITH HIGHER**
 16 **LEVELS OF ETHANOL.**

17 (a) IN GENERAL.—The Secretary, in cooperation
 18 with the Secretary of Agriculture, the Administrator of the
 19 Environmental Protection Agency, and the Secretary of
 20 Transportation, shall conduct a study of the methods of
 21 increasing consumption in the United States of ethanol-
 22 blended gasoline with levels of ethanol that are not less
 23 than 10 percent and not more than 40 percent.

24 (b) STUDY.—The study under subsection (a) shall in-
 25 clude—

1 (1) a review of production and infrastructure
2 constraints on increasing consumption of ethanol;

3 (2) an evaluation of the environmental con-
4 sequences of the ethanol blends described in sub-
5 section (a) on evaporative and exhaust emissions
6 from on-road, off-road, and marine vehicle engines;

7 (3) an evaluation of the consequences of the
8 ethanol blends described in subsection (a) on the op-
9 eration, durability, and performance of on-road, off-
10 road, and marine vehicle engines; and

11 (4) an evaluation of the life cycle impact of the
12 use of the ethanol blends described in subsection (a)
13 on carbon dioxide and greenhouse gas emissions.

14 (c) REPORT.—Not later than 1 year after the date
15 of enactment of this Act, the Secretary shall submit to
16 Congress a report describing the results of the study con-
17 ducted under this section.

18 **SEC. 4410. STUDY OF OPTIMIZATION OF FLEXIBLE FUELED**
19 **VEHICLES TO USE E-85 FUEL.**

20 (a) IN GENERAL.—The Secretary, in consultation
21 with the Secretary of Transportation, shall conduct a
22 study of whether optimizing flexible fueled vehicles to op-
23 erate using E-85 fuel would increase the fuel efficiency
24 of flexible fueled vehicles.

1 (b) REPORT.—Not later than 180 days after the date
2 of enactment of this Act, the Secretary shall submit to
3 the Committee on Science and Technology of the House
4 of Representatives the Committee on Energy and Natural
5 Resources of the Senate a report that describes the results
6 of the study under this section, including any rec-
7 ommendations of the Secretary.

8 **SEC. 4411. STUDY OF ENGINE DURABILITY AND PERFORM-**
9 **ANCE ASSOCIATED WITH THE USE OF BIO-**
10 **DIESEL.**

11 (a) IN GENERAL.—Not later than 30 days after the
12 date of enactment of this Act, the Secretary shall initiate
13 a study on the effects of the use of biodiesel on the per-
14 formance and durability of engines and engine systems.

15 (b) COMPONENTS.—The study under this section
16 shall include—

17 (1) an assessment of whether the use of bio-
18 diesel lessens the durability and performance of con-
19 ventional diesel engines and engine systems; and

20 (2) an assessment of the effects referred to in
21 subsection (a) with respect to biodiesel blends at
22 varying concentrations, including the following per-
23 centage concentrations of biodiesel:

24 (A) 5 percent biodiesel.

25 (B) 10 percent biodiesel.

1 (C) 20 percent biodiesel.

2 (D) 30 percent biodiesel.

3 (E) 100 percent biodiesel.

4 (c) REPORT.—Not later than 24 months after the
5 date of enactment of this Act, the Secretary shall submit
6 to the Committee on Science and Technology of the House
7 of Representatives the Committee on Energy and Natural
8 Resources of the Senate a report that describes the results
9 of the study under this section, including any rec-
10 ommendations of the Secretary.

11 **SEC. 4412. BIOENERGY RESEARCH AND DEVELOPMENT, AU-**
12 **THORIZATION OF APPROPRIATION.**

13 (a) Section 931 of the Energy Policy Act of 2005 (42
14 U.S.C. 16231) is amended—

15 (1) in subsection (b)—

16 (A) at the end of paragraph (2) by striking
17 “and”;

18 (B) at the end of paragraph (3) by striking
19 the period and inserting “; and”; and

20 (C) by adding at the end the following new
21 paragraph:

22 “(4) \$963,000,000 for fiscal year 2010.”; and

23 (2) in subsection (c)—

24 (A) in paragraph (2), by striking
25 “\$251,000,000” and inserting “\$377,000,000”;

1 (B) in paragraph (3), by striking
2 “\$274,000,000” and inserting “\$398,000,000”;
3 and

4 (C) by adding at the end the following new
5 paragraph:

6 “(4) \$419,000,000 for fiscal year 2010, of
7 which \$150,000,00 shall be for section 932(d).”.

8 **SEC. 4413. ENVIRONMENTAL RESEARCH AND DEVELOP-**
9 **MENT.**

10 (a) AMENDMENTS.—Section 977 of the Energy Pol-
11 icy Act of 2005 (42 U.S.C. 16317) is amended—

12 (1) in subsection (a)(1), by striking “and com-
13 putational biology” and inserting “computational bi-
14 ology, and environmental science”; and

15 (2) in subsection (b)—

16 (A) in paragraph (1), by inserting “in sus-
17 tainable production systems that reduce green-
18 house gas emissions” after “hydrogen”;

19 (B) at the end of paragraph (3), by strik-
20 ing “and”;

21 (C) by redesignating paragraph (4) as
22 paragraph (5); and

23 (D) by inserting after paragraph (3) the
24 following new paragraph:

1 “(4) develop cellulosic and other feedstocks that
2 are less resource and land intensive and that pro-
3 mote sustainable use of resources, including soil,
4 water, energy, forests, and land, and ensure protec-
5 tion of air, water, and soil quality; and”.

6 (b) TOOLS AND EVALUATION.—The Secretary, in
7 consultation with the Administrator of the Environmental
8 Protection Agency and the Secretary of Agriculture, shall
9 establish a research and development program to—

10 (1) improve and develop analytical tools to fa-
11 cilitate the analysis of life-cycle energy and green-
12 house gas emissions, including emissions related to
13 direct and indirect land use changes, attributable to
14 all potential biofuel feedstocks and production proc-
15 esses; and

16 (2) promote the systematic evaluation of the
17 impact of expanded biofuel production on the envi-
18 ronment, including forestlands, and on the food sup-
19 ply for humans and animals.

20 (c) SMALL-SCALE PRODUCTION AND USE OF
21 BIOFUELS.—The Secretary, in cooperation with the Sec-
22 retary of Agriculture, shall establish a research and devel-
23 opment program to facilitate small-scale production, local,
24 and on-farm use of biofuels, including the development of

1 small-scale gasification technologies for production of
2 biofuel from cellulosic feedstocks.

3 **SEC. 4414. STUDY OF OPTIMIZATION OF BIOGAS USED IN**
4 **NATURAL GAS VEHICLES.**

5 (a) IN GENERAL.—The Secretary of Energy shall
6 conduct a study of methods of increasing the fuel effi-
7 ciency of vehicles using biogas by optimizing natural gas
8 vehicle systems that can operate on biogas, including the
9 advancement of vehicle fuel systems and the combination
10 of hybrid-electric and plug-in hybrid electric drive plat-
11 forms with natural gas vehicle systems using biogas.

12 (b) REPORT.—Not later than 180 days after the date
13 of enactment of this Act, the Secretary of Energy shall
14 submit to the Committee on Energy and Natural Re-
15 sources of the Senate and the Committee on Science and
16 Technology of the House of Representatives a report that
17 describes the results of the study, including any rec-
18 ommendations of the Secretary.

19 **SEC. 4415. STANDARDS FOR BIOFUELS DISPENSERS.**

20 In the absence of appropriate private sector stand-
21 ards adopted prior to the date of enactment of this Act,
22 and consistent with the National Technology Transfer and
23 Advancement Act of 1995, the Secretary of Energy, in
24 consultation with the Director of the National Institute
25 of Standards and Technology, shall develop standards for

1 biofuel dispenser systems in order to promote broader
2 biofuels adoption and utilization.

3 **SEC. 4416. ALGAL BIOMASS.**

4 Not later than 90 days after the date of enactment
5 of this Act, the Secretary shall submit to the Committee
6 on Science and Technology of the House of Representa-
7 tives and the Committee on Energy and Natural Re-
8 sources of the Senate a report on the progress of the re-
9 search and development that is being conducted on the
10 use of algae as a feedstock for the production of biofuels.
11 The report shall identify continuing research and develop-
12 ment challenges and any regulatory or other barriers
13 found by the Secretary that hinder the use of this re-
14 source, as well as recommendations on how to encourage
15 and further its development as a viable transportation
16 fuel.

17 **SEC. 4417. UNIVERSITY BASED RESEARCH AND DEVELOP-**
18 **MENT GRANT PROGRAM.**

19 (a) ESTABLISHMENT.—The Secretary shall establish
20 a competitive grant program, in a geographically diverse
21 manner, for projects submitted for consideration by insti-
22 tutions of higher education to conduct research and devel-
23 opment of renewable energy technologies. Each grant
24 made shall not exceed \$2,000,000.

1 (b) ELIGIBILITY.—Priority shall be given to institu-
2 tions of higher education with—

3 (1) established programs of research in renew-
4 able energy;

5 (2) locations that are low income or outside of
6 an urbanized area;

7 (3) a joint venture with an Indian tribe; and

8 (4) proximity to trees dying of disease or insect
9 infestation as a source of woody biomass.

10 (c) AUTHORIZATION OF APPROPRIATIONS.—There
11 are authorized to be appropriated to the Secretary
12 \$25,000,000 for carrying out this section.

13 (d) DEFINITIONS.—In this section:

14 (1) INDIAN TRIBE.—The term “Indian tribe”
15 has the meaning as defined in section 126(c) of the
16 Energy Policy Act of 2005.

17 (2) INSTITUTIONS OF HIGHER EDUCATION.—
18 The term “institutions of higher education” has the
19 meaning as defined in section 102(a) of the Higher
20 Education Act of 1965.

21 (3) RENEWABLE ENERGY.—The term “renew-
22 able energy” has the meaning as defined in section
23 902 of the Energy Policy Act of 2005.

1 (4) URBANIZED AREA.—The term “urbanized
2 area” has the mean as defined by the U.S. Bureau
3 of the Census.

4 **Subtitle F—Carbon Capture and** 5 **Storage**

6 **SEC. 4501. SHORT TITLE.**

7 This subtitle may be cited as the “Department of En-
8 ergy Carbon Capture and Storage Research, Development,
9 and Demonstration Act of 2007”.

10 **SEC. 4502. CARBON CAPTURE AND STORAGE RESEARCH,** 11 **DEVELOPMENT, AND DEMONSTRATION PRO-** 12 **GRAM.**

13 (a) AMENDMENTS.—Section 963 of the Energy Pol-
14 icy Act of 2005 (42 U.S.C. 16293) is amended—

15 (1) in the section heading, by striking “**RE-**
16 **SEARCH AND DEVELOPMENT**” and inserting
17 “**AND STORAGE RESEARCH, DEVELOPMENT,**
18 **AND DEMONSTRATION**”;

19 (2) in subsection (a)—

20 (A) by striking “research and develop-
21 ment” and inserting “and storage research, de-
22 velopment, and demonstration”; and

23 (B) by striking “capture technologies on
24 combustion-based systems” and inserting “cap-

1 ture and storage technologies related to electric
2 power generating systems”;

3 (3) in subsection (b)—

4 (A) in paragraph (3), by striking “and” at
5 the end;

6 (B) in paragraph (4), by striking the pe-
7 riod at the end and inserting “; and”; and

8 (C) by adding at the end the following:

9 “(5) to expedite and carry out large-scale test-
10 ing of carbon sequestration systems in a range of ge-
11 ological formations that will provide information on
12 the cost and feasibility of deployment of sequestra-
13 tion technologies.”; and

14 (4) by striking subsection (c) and inserting the
15 following:

16 “(c) PROGRAMMATIC ACTIVITIES.—

17 “(1) FUNDAMENTAL SCIENCE AND ENGINEER-
18 ING RESEARCH AND DEVELOPMENT AND DEM-
19 ONSTRATION SUPPORTING CARBON CAPTURE AND
20 STORAGE TECHNOLOGIES.—

21 “(A) IN GENERAL.—The Secretary shall
22 carry out fundamental science and engineering
23 research (including laboratory-scale experi-
24 ments, numeric modeling, and simulations) to
25 develop and document the performance of new

1 approaches to capture and store carbon dioxide,
2 or to learn how to use carbon dioxide in prod-
3 ucts to lead to an overall reduction of carbon
4 dioxide emissions.

5 “(B) PROGRAM INTEGRATION.—The Sec-
6 retary shall ensure that fundamental research
7 carried out under this paragraph is appro-
8 priately applied to energy technology develop-
9 ment activities and the field testing of carbon
10 sequestration and carbon use activities, includ-
11 ing—

12 “(i) development of new or advanced
13 technologies for the capture of carbon diox-
14 ide;

15 “(ii) development of new or advanced
16 technologies that reduce the cost and in-
17 crease the efficacy of the compression of
18 carbon dioxide required for the storage of
19 carbon dioxide;

20 “(iii) modeling and simulation of geo-
21 logical sequestration field demonstrations;

22 “(iv) quantitative assessment of risks
23 relating to specific field sites for testing of
24 sequestration technologies; and

1 “(v) research and development of new
2 and advanced technologies for carbon use,
3 including recycling and reuse of carbon di-
4 oxide.

5 “(2) FIELD VALIDATION TESTING ACTIVI-
6 TIES.—

7 “(A) IN GENERAL.—The Secretary shall
8 promote, to the maximum extent practicable,
9 regional carbon sequestration partnerships to
10 conduct geologic sequestration tests involving
11 carbon dioxide injection and monitoring, mitiga-
12 tion, and verification operations in a variety of
13 candidate geological settings, including—

14 “(i) operating oil and gas fields;

15 “(ii) depleted oil and gas fields;

16 “(iii) unmineable coal seams;

17 “(iv) deep saline formations;

18 “(v) deep geologic systems that may
19 be used as engineered reservoirs to extract
20 economical quantities of heat from geo-
21 thermal resources of low permeability or
22 porosity;

23 “(vi) deep geologic systems containing
24 basalt formations; and

1 “(vii) high altitude terrain oil and gas
2 fields.

3 “(B) OBJECTIVES.—The objectives of tests
4 conducted under this paragraph shall be—

5 “(i) to develop and validate geo-
6 physical tools, analysis, and modeling to
7 monitor, predict, and verify carbon dioxide
8 containment;

9 “(ii) to validate modeling of geological
10 formations;

11 “(iii) to refine storage capacity esti-
12 mated for particular geological formations;

13 “(iv) to determine the fate of carbon
14 dioxide concurrent with and following in-
15 jection into geological formations;

16 “(v) to develop and implement best
17 practices for operations relating to, and
18 monitoring of, injection and storage of car-
19 bon dioxide in geologic formations;

20 “(vi) to assess and ensure the safety
21 of operations related to geological storage
22 of carbon dioxide;

23 “(vii) to allow the Secretary to pro-
24 mulgate policies, procedures, requirements,
25 and guidance to ensure that the objectives

1 of this subparagraph are met in large-scale
2 testing and deployment activities for car-
3 bon capture and storage that are funded
4 by the Department of Energy; and

5 “(viii) to support Environmental Pro-
6 tection Agency efforts, in consultation with
7 other agencies, to develop a scientifically
8 sound regulatory framework to enable com-
9 mercial-scale sequestration operations
10 while safeguarding human health and un-
11 derground sources of drinking water.

12 “(3) LARGE-SCALE CARBON DIOXIDE SEQUES-
13 TRATION TESTING.—

14 “(A) IN GENERAL.—The Secretary shall
15 conduct not less than 7 initial large-volume se-
16 questration tests, not including the FutureGen
17 project, for geological containment of carbon di-
18 oxide (at least 1 of which shall be international
19 in scope) to validate information on the cost
20 and feasibility of commercial deployment of
21 technologies for geological containment of car-
22 bon dioxide.

23 “(B) DIVERSITY OF FORMATIONS TO BE
24 STUDIED.—In selecting formations for study
25 under this paragraph, the Secretary shall con-

1 sider a variety of geological formations across
2 the United States, and require characterization
3 and modeling of candidate formations, as deter-
4 mined by the Secretary.

5 “(C) SOURCE OF CARBON DIOXIDE FOR
6 LARGE-SCALE SEQUESTRATION DEMONSTRA-
7 TIONS.—In the process of any acquisition of
8 carbon dioxide for sequestration demonstrations
9 under subparagraph (A), the Secretary shall
10 give preference to purchases of carbon dioxide
11 from industrial and coal-fired electric genera-
12 tion facilities. To the extent feasible, the Sec-
13 retary shall prefer test projects from industrial
14 and coal-fired electric generation facilities that
15 would facilitate the creation of an integrated
16 system of capture, transportation and storage
17 of carbon dioxide. Until coal-fired electric gen-
18 eration facilities, either new or existing, are op-
19 erating with carbon dioxide capture tech-
20 nologies, other industrial sources of carbon di-
21 oxide should be pursued under this paragraph.
22 The preference provided for under this subpara-
23 graph shall not delay the implementation of the
24 large-scale sequestration tests under this para-
25 graph.

1 “(D) DEFINITION.—For purposes of this
2 paragraph, the term ‘large-scale’ means the in-
3 jection of more than 1,000,000 metric tons of
4 carbon dioxide annually, or a scale that demon-
5 strably exceeds the necessary thresholds in key
6 geologic transients to validate the ability con-
7 tinuously to inject quantities on the order of
8 several million metric tons of industrial carbon
9 dioxide annually for a large number of years.

10 “(4) LARGE-SCALE DEMONSTRATION OF CAR-
11 BON DIOXIDE CAPTURE TECHNOLOGIES.—

12 “(A) IN GENERAL.—The Secretary shall
13 carry out at least 3 and no more than 5 dem-
14 onstrations, that include each of the tech-
15 nologies described in subparagraph (B), for the
16 large-scale capture of carbon dioxide from in-
17 dustrial sources of carbon dioxide, at least 2 of
18 which are facilities that generate electric energy
19 from fossil fuels. Candidate facilities for other
20 demonstrations under this paragraph shall in-
21 clude facilities that refine petroleum, manufac-
22 ture iron or steel, manufacture cement or ce-
23 ment clinker, manufacture commodity chemi-
24 cals, and ethanol and fertilizer plants. Consider-
25 ation may be given to capture of carbon dioxide

1 from industrial facilities and electric generation
2 carbon sources that are near suitable geological
3 reservoirs and could continue sequestration. To
4 ensure reduced carbon dioxide emissions, the
5 Secretary shall take necessary actions to pro-
6 vide for the integration of the program under
7 this paragraph with the long-term carbon diox-
8 ide sequestration demonstrations described in
9 paragraph (3). These actions should not delay
10 implementation of the large-scale sequestration
11 tests authorized in paragraph (3).

12 “(B) TECHNOLOGIES.—The technologies
13 referred to in subparagraph (A) are
14 precombustion capture, post-combustion cap-
15 ture, and oxycombustion.

16 “(C) SCOPE OF AWARD.—An award under
17 this paragraph shall be only for the portion of
18 the project that carries out the large-scale cap-
19 ture (including purification and compression) of
20 carbon dioxide, as well as the cost of transpor-
21 tation and injection of carbon dioxide.

22 “(5) PREFERENCE IN PROJECT SELECTION
23 FROM MERITORIOUS PROPOSALS.—In making com-
24 petitive awards under this subsection, subject to the
25 requirements of section 989, the Secretary shall—

1 “(A) give preference to proposals from
2 partnerships among industrial, academic, and
3 government entities; and

4 “(B) require recipients to provide assur-
5 ances that all laborers and mechanics employed
6 by contractors and subcontractors in the con-
7 struction, repair, or alteration of new or exist-
8 ing facilities performed in order to carry out a
9 demonstration or commercial application activ-
10 ity authorized under this subsection shall be
11 paid wages at rates not less than those pre-
12 vailing on similar construction in the locality, as
13 determined by the Secretary of Labor in ac-
14 cordance with subchapter IV of chapter 31 of
15 title 40, United States Code, and the Secretary
16 of Labor shall, with respect to the labor stand-
17 ards in this paragraph, have the authority and
18 functions set forth in Reorganization Plan
19 Numbered 14 of 1950 (15 Fed. Reg. 3176; 5
20 U.S.C. Appendix) and section 3145 of title 40,
21 United States Code.

22 “(6) COST SHARING.—Activities under this sub-
23 section shall be considered research and development
24 activities that are subject to the cost-sharing re-
25 quirements of section 988(b), except that the Fed-

1 eral share of a project under paragraph (4) shall not
2 exceed 50 percent.

3 “(d) AUTHORIZATION OF APPROPRIATIONS.—

4 “(1) IN GENERAL.—There are authorized to be
5 appropriated to the Secretary for carrying out this
6 section, other than subsection (c)(3) and (4)—

7 “(A) \$100,000,000 for fiscal year 2008;

8 “(B) \$100,000,000 for fiscal year 2009;

9 “(C) \$100,000,000 for fiscal year 2010;

10 and

11 “(D) \$100,000,000 for fiscal year 2011.

12 “(2) SEQUESTRATION.—There are authorized
13 to be appropriated to the Secretary for carrying out
14 subsection (c)(3)—

15 “(A) \$140,000,000 for fiscal year 2008;

16 “(B) \$140,000,000 for fiscal year 2009;

17 “(C) \$140,000,000 for fiscal year 2010;

18 and

19 “(D) \$140,000,000 for fiscal year 2011.

20 “(3) CARBON CAPTURE.—There are authorized
21 to be appropriated to the Secretary for carrying out
22 subsection (c)(4)—

23 “(A) \$180,000,000 for fiscal year 2009;

24 “(B) \$180,000,000 for fiscal year 2010;

1 “(C) \$180,000,000 for fiscal year 2011;

2 and

3 “(D) \$180,000,000 for fiscal year 2012.”.

4 (b) TABLE OF CONTENTS AMENDMENT.—The item
5 relating to section 963 in the table of contents for the En-
6 ergy Policy Act of 2005 is amended to read as follows:

“Sec. 963. Carbon capture and storage research, development, and demonstra-
tion program.”.

7 **SEC. 4503. REVIEW OF LARGE-SCALE PROGRAMS.**

8 The Secretary of Energy shall enter into an arrange-
9 ment with the National Academy of Sciences for an inde-
10 pendent review and oversight, beginning in 2011, of the
11 programs under section 963(c)(3) and (4) of the Energy
12 Policy Act of 2005, as added by section 4502 of this sub-
13 title, to ensure that the benefits of such programs are
14 maximized. Not later than January 1, 2012, the Secretary
15 shall transmit to the Congress a report on the results of
16 such review and oversight.

17 **SEC. 4504. SAFETY RESEARCH.**

18 (a) PROGRAM.—The Assistant Administrator for Re-
19 search and Development of the Environmental Protection
20 Agency shall conduct a research program to determine
21 procedures necessary to protect public health, safety, and
22 the environment from impacts that may be associated with
23 capture, injection, and sequestration of greenhouse gases
24 in subterranean reservoirs.

1 (b) AUTHORIZATION OF APPROPRIATIONS.—There
2 are authorized to be appropriated for carrying out this sec-
3 tion \$5,000,000 for each fiscal year.

4 **SEC. 4505. GEOLOGICAL SEQUESTRATION TRAINING AND**
5 **RESEARCH.**

6 (a) STUDY.—

7 (1) IN GENERAL.—The Secretary of Energy
8 shall enter into an arrangement with the National
9 Academy of Sciences to undertake a study that—

10 (A) defines an interdisciplinary program in
11 geology, engineering, hydrology, environmental
12 science, and related disciplines that will support
13 the Nation’s capability to capture and sequester
14 carbon dioxide from anthropogenic sources;

15 (B) addresses undergraduate and graduate
16 education, especially to help develop graduate
17 level programs of research and instruction that
18 lead to advanced degrees with emphasis on geo-
19 logical sequestration science;

20 (C) develops guidelines for proposals from
21 colleges and universities with substantial capa-
22 bilities in the required disciplines that wish to
23 implement geological sequestration science pro-
24 grams that advance the Nation’s capacity to ad-

1 dress carbon management through geological
2 sequestration science; and

3 (D) outlines a budget and recommenda-
4 tions for how much funding will be necessary to
5 establish and carry out the grant program
6 under subsection (b).

7 (2) REPORT.—Not later than 1 year after the
8 date of enactment of this Act, the Secretary of En-
9 ergy shall transmit to the Congress a copy of the re-
10 sults of the study provided by the National Academy
11 of Sciences under paragraph (1).

12 (3) AUTHORIZATION OF APPROPRIATIONS.—
13 There are authorized to be appropriated to the Sec-
14 retary for carrying out this subsection \$1,000,000
15 for fiscal year 2008.

16 (b) GRANT PROGRAM.—

17 (1) ESTABLISHMENT.—The Secretary of En-
18 ergy, through the National Energy Technology Lab-
19 oratory, shall establish a competitive grant program
20 through which colleges and universities may apply
21 for and receive 4-year grants for—

22 (A) salary and startup costs for newly des-
23 ignated faculty positions in an integrated geo-
24 logical carbon sequestration science program;
25 and

1 (B) internships for graduate students in
2 geological sequestration science.

3 (2) RENEWAL.—Grants under this subsection
4 shall be renewable for up to 2 additional 3-year
5 terms, based on performance criteria, established by
6 the National Academy of Sciences study conducted
7 under subsection (a), that include the number of
8 graduates of such programs.

9 (3) INTERFACE WITH REGIONAL GEOLOGICAL
10 CARBON SEQUESTRATION PARTNERSHIPS.—To the
11 greatest extent possible, geological carbon sequestra-
12 tion science programs supported under this sub-
13 section shall interface with the research of the Re-
14 gional Carbon Sequestration Partnerships operated
15 by the Department of Energy to provide internships
16 and practical training in carbon capture and geologi-
17 cal sequestration.

18 (4) AUTHORIZATION OF APPROPRIATIONS.—
19 There are authorized to be appropriated to the Sec-
20 retary for carrying out this subsection such sums as
21 may be necessary.

22 **SEC. 4506. UNIVERSITY BASED RESEARCH AND DEVELOP-**
23 **MENT GRANT PROGRAM.**

24 (a) ESTABLISHMENT.—The Secretary of Energy, in
25 consultation with other appropriate agencies, shall estab-

lish a university based research and development program to study carbon capture and sequestration using the various types of coal.

(b) GRANTS.—Under this section, the Secretary shall award 5 grants for projects submitted by colleges or universities to study carbon capture and sequestration in conjunction with the recovery of oil and other enhanced elemental and mineral recovery. Consideration shall be given to areas that have regional sources of coal for the study of carbon capture and sequestration.

(c) RURAL AND AGRICULTURAL INSTITUTIONS.—The Secretary shall designate that at least 2 of these grants shall be awarded to rural or agricultural based institutions that offer interdisciplinary programs in the area of environmental science to study carbon capture and sequestration in conjunction with the recovery of oil and other enhanced elemental and mineral recovery.

(d) AUTHORIZATION OF APPROPRIATIONS.—There are to be authorized to be appropriated \$10,000,000 to carry out this section.

Subtitle G—Global Change Research

SEC. 4601. SHORT TITLE.

This subtitle may be cited as the “Global Change Research and Data Management Act of 2007”.

PART 1—GLOBAL CHANGE RESEARCH

SEC. 4611. FINDINGS AND PURPOSE.

(a) FINDINGS.—The Congress makes the following findings:

(1) Industrial, agricultural, and other human activities, coupled with an expanding world population, are contributing to processes of global change that are significantly altering the Earth habitat.

(2) Such human-induced changes, in conjunction with natural fluctuations, may lead to significant alterations of world climate patterns. Over the next century, these changes could adversely affect world agricultural and marine production, coastal habitability, biological diversity, human health, global social and political stability, and global economic activity.

(3) Developments in interdisciplinary Earth sciences, global observing systems, and satellite and computing technologies make possible significant scientific understanding of global changes and their effects, and have resulted in the significant expansion of environmental data and information.

(4) Development of effective policies to prevent, mitigate, and adapt to global change will rely on improvement in scientific understanding of global environmental processes and on development of informa-

1 tion that is of use to decisionmakers at the local, re-
2 gional, and national levels.

3 (5) Although the United States Global Change
4 Research Program has made significant contribu-
5 tions to understanding Earth's climate and the an-
6 thropogenic influences on Earth's climate and its
7 ecosystems, the Program now needs to produce more
8 information to meet the expressed needs of decision-
9 makers.

10 (6) Predictions of future climate conditions for
11 specific regions have considerable uncertainty and
12 are unlikely to be confirmed in a time period nec-
13 essary to inform decisions on land, water, and re-
14 source management. However, improved under-
15 standing of global change should be used to assist
16 decisionmakers in the development of policies to en-
17 sure that ecological, social, and economic systems
18 are resilient under a variety of plausible climate fu-
19 tures.

20 (7) In order to most effectively meet the needs
21 of decisionmakers, both the research agenda of the
22 United States Global Change Research Program and
23 its implementation must be informed by continuous
24 feedback from documented users of information gen-
25 erated by the Program.

1 (b) PURPOSE.—The purpose of this part is to provide
2 for the continuation and coordination of a comprehensive
3 and integrated United States observation, research, and
4 outreach program which will assist the Nation and the
5 world to understand, assess, predict, and respond to the
6 effects of human-induced and natural processes of global
7 change.

8 **SEC. 4612. DEFINITIONS.**

9 For purposes of this part—

10 (1) the term “global change” means human-in-
11 duced or natural changes in the global environment
12 (including alterations in climate, land productivity,
13 oceans or other water resources, atmospheric chem-
14 istry, biodiversity, and ecological systems) that may
15 alter the capacity of the Earth to sustain life;

16 (2) the term “global change research” means
17 study, monitoring, assessment, prediction, and infor-
18 mation management activities to describe and under-
19 stand—

20 (A) the interactive physical, chemical, and
21 biological processes that regulate the total
22 Earth system;

23 (B) the unique environment that the Earth
24 provides for life;

1 (C) changes that are occurring in the
2 Earth system; and

3 (D) the manner in which such system, en-
4 vironment, and changes are influenced by
5 human actions;

6 (3) the term “interagency committee” means
7 the interagency committee established under section
8 4613;

9 (4) the term “Plan” means the National Global
10 Change Research and Assessment Plan developed
11 under section 4615;

12 (5) the term “Program” means the United
13 States Global Change Research Program established
14 under section 4614; and

15 (6) the term “regional climate change” means
16 the natural or human-induced changes manifested in
17 the local or regional environment (including alter-
18 ations in weather patterns, land productivity, water
19 resources, sea level rise, atmospheric chemistry, bio-
20 diversity, and ecological systems) that may alter the
21 capacity of a specific region to support current or
22 future social and economic activity or natural eco-
23 systems.

1 **SEC. 4613. INTERAGENCY COOPERATION AND COORDINA-**
2 **TION.**

3 (a) ESTABLISHMENT.—The President shall establish
4 or designate an interagency committee to ensure coopera-
5 tion and coordination of all Federal research activities per-
6 taining to processes of global change for the purpose of
7 increasing the overall effectiveness and productivity of
8 Federal global change research efforts. The interagency
9 committee shall include representatives of both agencies
10 conducting global change research and agencies with au-
11 thority over resources likely to be affected by global
12 change.

13 (b) FUNCTIONS OF THE INTERAGENCY COM-
14 MITTEE.—The interagency committee shall—

15 (1) serve as the forum for developing the Plan
16 and for overseeing its implementation;

17 (2) serve as the forum for developing the vul-
18 nerability assessment under section 4617;

19 (3) ensure cooperation among Federal agencies
20 with respect to global change research activities;

21 (4) work with academic, State, industry, and
22 other groups conducting global change research, to
23 provide for periodic public and peer review of the
24 Program;

25 (5) cooperate with the Secretary of State in—

1 (A) providing representation at inter-
2 national meetings and conferences on global
3 change research in which the United States
4 participates; and

5 (B) coordinating the Federal activities of
6 the United States with programs of other na-
7 tions and with international global change re-
8 search activities;

9 (6) work with appropriate Federal, State, re-
10 gional, and local authorities to ensure that the Pro-
11 gram is designed to produce information needed to
12 develop policies to reduce the vulnerability of the
13 United States and other regions to global change;

14 (7) facilitate ongoing dialog and information ex-
15 change with regional, State, and local governments
16 and other user communities; and

17 (8) identify additional decisionmaking groups
18 that may use information generated through the
19 Program.

20 **SEC. 4614. UNITED STATES GLOBAL CHANGE RESEARCH**
21 **PROGRAM.**

22 (a) ESTABLISHMENT.—The President shall establish
23 an interagency United States Global Change Research
24 Program to improve understanding of global change, to
25 respond to the information needs of communities and deci-

1 sionmakers, and to provide periodic assessments of the
2 vulnerability of the United States and other regions to
3 global and regional climate change. The Program shall be
4 implemented in accordance with the Plan.

5 (b) LEAD AGENCY.—The lead agency for the United
6 States Global Change Research Program shall be the Of-
7 fice of Science and Technology Policy.

8 (c) INTERAGENCY PROGRAM ACTIVITIES.—The Di-
9 rector of the Office of Science and Technology Policy, in
10 consultation with the interagency committee, shall identify
11 activities included in the Plan that involve participation
12 by 2 or more agencies in the Program, and that do not
13 fall within the current fiscal year budget allocations of
14 those participating agencies, to fulfill the requirements of
15 this subtitle. The Director of the Office of Science and
16 Technology Policy shall allocate funds to the agencies to
17 conduct the identified interagency activities. Such activi-
18 ties may include—

19 (1) development of scenarios for climate, land-
20 cover change, population growth, and socioeconomic
21 development;

22 (2) calibration and testing of alternative re-
23 gional and global climate models;

24 (3) identification of economic sectors and re-
25 gional climatic zones; and

1 (4) convening regional workshops to facilitate
2 information exchange and involvement of regional,
3 State, and local decisionmakers, non-Federal ex-
4 perts, and other stakeholder groups in the activities
5 of the Program.

6 (d) WORKSHOPS.—The Director shall ensure that at
7 least one workshop is held per year in each region identi-
8 fied by the Plan under section 4615(b)(11) to facilitate
9 information exchange and outreach to regional, State, and
10 local stakeholders as required by this subtitle.

11 (e) AUTHORIZATION OF APPROPRIATIONS.—There
12 are authorized to be appropriated to the Office of Science
13 and Technology Policy for carrying out this section
14 \$10,000,000 for each of the fiscal years 2008 through
15 2013.

16 **SEC. 4615. NATIONAL GLOBAL CHANGE RESEARCH AND AS-**
17 **SESSMENT PLAN.**

18 (a) IN GENERAL.—The President shall develop a Na-
19 tional Global Change Research and Assessment Plan for
20 implementation of the Program. The Plan shall contain
21 recommendations for global change research and assess-
22 ment. The President shall submit an outline for the devel-
23 opment of the Plan to the Congress within 1 year after
24 the date of enactment of this Act, and shall submit a com-
25 pleted Plan to the Congress within 3 years after the date

1 of enactment of this Act. Revised Plans shall be submitted
2 to the Congress at least once every 5 years thereafter. In
3 the development of each Plan, the President shall conduct
4 a formal assessment process under this section to deter-
5 mine the needs of appropriate Federal, State, regional,
6 and local authorities and other interested parties regard-
7 ing the types of information needed by them in developing
8 policies to reduce society's vulnerability to global change
9 and shall utilize these assessments, including the reviews
10 by the National Academy of Sciences and the National
11 Governors Association under subsections (e) and (f), in
12 developing the Plan.

13 (b) CONTENTS OF THE PLAN.—The Plan shall—

14 (1) establish, for the 10-year period beginning
15 in the year the Plan is submitted, the goals and pri-
16 orities for Federal global change research which
17 most effectively advance scientific understanding of
18 global change and provide information of use to
19 Federal, State, regional, and local authorities in the
20 development of policies relating to global change;

21 (2) describe specific activities, including efforts
22 to determine user information needs, research activi-
23 ties, data collection, database development, and data
24 analysis requirements, development of regional sce-
25 narios, assessment of model predictability, assess-

1 ment of climate change impacts, participation in
2 international research efforts, and information man-
3 agement, required to achieve such goals and prior-
4 ities;

5 (3) identify relevant programs and activities of
6 the Federal agencies that contribute to the Program
7 directly and indirectly;

8 (4) set forth the role of each Federal agency in
9 implementing the Plan;

10 (5) consider and utilize, as appropriate, reports
11 and studies conducted by Federal agencies, the Na-
12 tional Research Council, or other entities;

13 (6) make recommendations for the coordination
14 of the global change research and assessment activi-
15 ties of the United States with such activities of other
16 nations and international organizations, including—

17 (A) a description of the extent and nature
18 of international cooperative activities;

19 (B) bilateral and multilateral efforts to
20 provide worldwide access to scientific data and
21 information; and

22 (C) improving participation by developing
23 nations in international global change research
24 and environmental data collection;

1 (7) detail budget requirements for Federal glob-
2 al change research and assessment activities to be
3 conducted under the Plan;

4 (8) catalog the type of information identified by
5 appropriate Federal, State, regional, and local deci-
6 sionmakers needed to develop policies to reduce soci-
7 ety's vulnerability to global change and indicate how
8 the planned research will meet these decisionmakers'
9 information needs;

10 (9) identify the observing systems currently em-
11 ployed in collecting data relevant to global and re-
12 gional climate change research and prioritize addi-
13 tional observation systems that may be needed to en-
14 sure adequate data collection and monitoring of
15 global change;

16 (10) describe specific activities designed to fa-
17 cilitate outreach and data and information exchange
18 with regional, State, and local governments and
19 other user communities; and

20 (11) identify and describe regions of the United
21 States that are likely to experience similar impacts
22 of global change or are likely to share similar
23 vulnerabilities to global change.

24 (c) RESEARCH ELEMENTS.—The Plan shall include
25 at a minimum the following research elements:

1 (1) Global measurements, establishing world-
2 wide to regional scale observations prioritized to un-
3 derstand global change and to meet the information
4 needs of decisionmakers on all relevant spatial and
5 time scales.

6 (2) Information on economic, demographic, and
7 technological trends that contribute to changes in
8 the Earth system and that influence society's vulner-
9 ability to global and regional climate change.

10 (3) Development of indicators and baseline
11 databases to document global change, including
12 changes in species distribution and behavior, extent
13 of glaciations, and changes in sea level.

14 (4) Studies of historical changes in the Earth
15 system, using evidence from the geological and fossil
16 record.

17 (5) Assessments of predictability using quan-
18 titative models of the Earth system to simulate glob-
19 al and regional environmental processes and trends.

20 (6) Focused research initiatives to understand
21 the nature of and interaction among physical, chem-
22 ical, biological, land use, and social processes related
23 to global and regional climate change.

1 (7) Focused research initiatives to determine
2 and then meet the information needs of appropriate
3 Federal, State, and regional decisionmakers.

4 (d) INFORMATION MANAGEMENT.—The Plan shall
5 incorporate, to the extent practicable, the recommenda-
6 tions relating to data acquisition, management, integra-
7 tion, and archiving made by the interagency climate and
8 other global change data management working group es-
9 tablished under section 4633.

10 (e) NATIONAL ACADEMY OF SCIENCES EVALUA-
11 TION.—The President shall enter into an agreement with
12 the National Academy of Sciences under which the Acad-
13 emy shall—

14 (1) evaluate the scientific content of the Plan;
15 and

16 (2) recommend priorities for future global and
17 regional climate change research and assessment.

18 (f) NATIONAL GOVERNORS ASSOCIATION EVALUA-
19 TION.—The President shall enter into an agreement with
20 the National Governors Association Center for Best Prac-
21 tices under which that Center shall—

22 (1) evaluate the utility to State, local, and re-
23 gional decisionmakers of each Plan and of the antici-
24 pated and actual information outputs of the Pro-

1 gram for development of State, local, and regional
2 policies to reduce vulnerability to global change; and
3 (2) recommend priorities for future global and
4 regional climate change research and assessment.

5 (g) PUBLIC PARTICIPATION.—In developing the
6 Plan, the President shall consult with representatives of
7 academic, State, industry, and environmental groups. Not
8 later than 90 days before the President submits the Plan,
9 or any revision thereof, to the Congress, a summary of
10 the proposed Plan shall be published in the Federal Reg-
11 ister for a public comment period of not less than 60 days.

12 **SEC. 4616. BUDGET COORDINATION.**

13 (a) IN GENERAL.—The President shall provide gen-
14 eral guidance to each Federal agency participating in the
15 Program with respect to the preparation of requests for
16 appropriations for activities related to the Program.

17 (b) CONSIDERATION IN PRESIDENT’S BUDGET.—The
18 President shall submit, at the time of his annual budget
19 request to Congress, a description of those items in each
20 agency’s annual budget which are elements of the Pro-
21 gram.

22 **SEC. 4617. VULNERABILITY ASSESSMENT.**

23 (a) REQUIREMENT.—Within 1 year after the date of
24 enactment of this Act, and at least once every 5 years

1 thereafter, the President shall submit to the Congress an
2 assessment which—

3 (1) integrates, evaluates, and interprets the
4 findings of the Program and discusses the scientific
5 uncertainties associated with such findings;

6 (2) analyzes current trends in global change,
7 both human-induced and natural, and projects major
8 trends for the subsequent 25 to 100 years;

9 (3) based on indicators and baselines developed
10 under section 4615(c)(3), as well as other measure-
11 ments, analyzes changes to the natural environment,
12 land and water resources, and biological diversity
13 in—

14 (A) major geographic regions of the United
15 States; and

16 (B) other continents;

17 (4) analyzes the effects of global change, includ-
18 ing the changes described in paragraph (3), on food
19 and fiber production, energy production and use,
20 transportation, human health and welfare, water
21 availability and coastal infrastructure, and human
22 social and economic systems, including providing in-
23 formation about the differential impacts on specific
24 geographic regions within the United States, on peo-
25 ple of different income levels within those regions,

1 and for rural and urban areas within those regions;
2 and

3 (5) summarizes the vulnerability of different ge-
4 ographic regions of the world to global change and
5 analyzes the implications of global change for the
6 United States, including international assistance,
7 population displacement, food and resource avail-
8 ability, and national security.

9 (b) USE OF RELATED REPORTS.—To the extent ap-
10 propriate, the assessment produced pursuant to this sec-
11 tion may coordinate with, consider, incorporate, or other-
12 wise make use of related reports, assessments, or informa-
13 tion produced by the United States Global Change Re-
14 search Program, regional, State, and local entities, and
15 international organizations, including the World Meteorolo-
16 gical Organization and the Intergovernmental Panel on
17 Climate Change.

18 **SEC. 4618. POLICY ASSESSMENT.**

19 Not later than 1 year after the date of enactment
20 of this Act, and at least once every 4 years thereafter,
21 the President shall enter into a joint agreement with the
22 National Academy of Public Administration and the Na-
23 tional Academy of Sciences under which the Academies
24 shall—

1 (1) document current policy options being im-
2 plemented by Federal, State, and local governments
3 to mitigate or adapt to the effects of global and re-
4 gional climate change;

5 (2) evaluate the realized and anticipated effec-
6 tiveness of those current policy options in meeting
7 mitigation and adaptation goals;

8 (3) identify and evaluate a range of additional
9 policy options and infrastructure for mitigating or
10 adapting to the effects of global and regional climate
11 change;

12 (4) analyze the adoption rates of policies and
13 technologies available to reduce the vulnerability of
14 society to global change with an evaluation of the
15 market and policy obstacles to their adoption in the
16 United States; and

17 (5) evaluate the distribution of economic costs
18 and benefits of these policy options across different
19 United States economic sectors.

20 **SEC. 4619. ANNUAL REPORT.**

21 Each year at the time of submission to the Congress
22 of the President's budget request, the President shall sub-
23 mit to the Congress a report on the activities conducted
24 pursuant to this part, including—

1 (1) a description of the activities of the Pro-
2 gram during the past fiscal year;

3 (2) a description of the activities planned in the
4 next fiscal year toward achieving the goals of the
5 Plan; and

6 (3) a description of the groups or categories of
7 State, local, and regional decisionmakers identified
8 as potential users of the information generated
9 through the Program and a description of the activi-
10 ties used to facilitate consultations with and out-
11 reach to these groups, coordinated through the work
12 of the interagency committee.

13 **SEC. 4620. RELATION TO OTHER AUTHORITIES.**

14 The President shall—

15 (1) ensure that relevant research, assessment,
16 and outreach activities of the National Climate Pro-
17 gram, established by the National Climate Program
18 Act (15 U.S.C. 2901 et seq.), are considered in de-
19 veloping national global and regional climate change
20 research and assessment efforts; and

21 (2) facilitate ongoing dialog and information ex-
22 change with regional, State, and local governments
23 and other user communities through programs au-
24 thorized in the National Climate Program Act (15
25 U.S.C. 2901 et seq.).

1 **SEC. 4621. REPEAL.**

2 The Global Change Research Act of 1990 (15 U.S.C.
3 2921 et seq.) is repealed.

4 **SEC. 4622. GLOBAL CHANGE RESEARCH INFORMATION.**

5 The President shall establish or designate a Global
6 Change Research Information Exchange to make scientific
7 research and other information produced through or uti-
8 lized by the Program which would be useful in preventing,
9 mitigating, or adapting to the effects of global change ac-
10 cessible through electronic means.

11 **SEC. 4623. ICE SHEET STUDY AND REPORT.**

12 (a) STUDY.—

13 (1) REQUIREMENT.—The Director of the Na-
14 tional Science Foundation and the Administrator of
15 National Oceanic and Atmospheric Administration
16 shall enter into an arrangement with the National
17 Academy of Sciences to complete a study of the cur-
18 rent status of ice sheet melt, as caused by climate
19 change, with implications for global sea level rise.

20 (2) CONTENTS.—The study shall take into con-
21 sideration—

22 (A) the past research completed related to
23 ice sheet melt as reviewed by Working Group I
24 of the Intergovernmental Panel on Climate
25 Change;

1 (B) additional research completed since the
2 fall of 2005 that was not included in the Work-
3 ing Group I report due to time constraints; and

4 (C) the need for an accurate assessment of
5 changes in ice sheet spreading, changes in ice
6 sheet flow, self-lubrication, the corresponding
7 effect on ice sheets, and current modeling capa-
8 bilities.

9 (3) REPORT.—Not later than 18 months after
10 the date of enactment of this Act, the National
11 Academy of Sciences shall transmit to the Com-
12 mittee on Science and Technology of the House of
13 Representatives and the Committee on Commerce,
14 Science, and Transportation of the Senate a report
15 on the key findings of the study conducted under
16 subsection (a), along with recommendations for addi-
17 tional research related to ice sheet melt and cor-
18 responding sea level rise.

19 **SEC. 4624. HURRICANE FREQUENCY AND INTENSITY STUDY**
20 **AND REPORT.**

21 (a) STUDY.—

22 (1) REQUIREMENT.—The Administrator of the
23 National Oceanic and Atmospheric Administration
24 and the Director of the National Science Foundation
25 shall enter into an arrangement with the National

1 Academy of Sciences to complete a study of the cur-
2 rent state of the science on the potential impacts of
3 climate change on patterns of hurricane and typhoon
4 development, including storm intensity, track, and
5 frequency, and the implications for hurricane-prone
6 and typhoon-prone coastal regions.

7 (2) CONTENTS.—The study shall take into con-
8 sideration—

9 (A) the past research completed related to
10 hurricane and typhoon development, track, and
11 intensity as reviewed by Working Groups I and
12 II of the Intergovernmental Panel on Climate
13 Change;

14 (B) additional research completed since the
15 fall of 2005 that was not included in the Work-
16 ing Group I and II reports due to time con-
17 straints;

18 (C) the need for accurate assessment of
19 potential changes in hurricane and typhoon in-
20 tensity, track, and frequency and of the current
21 modeling and forecasting capabilities and the
22 need for improvements in forecasting of these
23 parameters; and

24 (D) the need for additional research and
25 monitoring to improve forecasting of hurricanes

1 and typhoons and to understand the relation-
2 ship between climate change and hurricane and
3 typhoon development.

4 (3) REPORT.—Not later than 18 months after
5 the date of enactment of this Act, the National
6 Academy of Sciences shall transmit to the Com-
7 mittee on Science and Technology of the House of
8 Representatives and the Committee on Commerce,
9 Science, and Transportation of the Senate a report
10 on the key findings of the study conducted under
11 subsection (a).

12 **PART 2—CLIMATE AND OTHER GLOBAL CHANGE**

13 **DATA MANAGEMENT**

14 **SEC. 4631. FINDINGS AND PURPOSES.**

15 (a) FINDINGS.—The Congress makes the following
16 findings:

17 (1) Federal agencies have a primary mission to
18 manage and archive climate and other global change
19 data obtained through their research, development,
20 or operational activities.

21 (2) Maintenance of climate and global change
22 data records is essential to present and future stud-
23 ies of the Earth’s atmosphere, biogeochemical cycles,
24 and climate.

1 (3) Federal capabilities for the management
2 and archiving of these data have not kept pace with
3 advances in satellite and other observational tech-
4 nologies that have vastly expanded the type and
5 amount of information that can be collected.

6 (4) Proposals and plans for expansion of global
7 observing networks should include plans for the
8 management of data to be collected and budgets re-
9 flecting the cost of support for management and
10 archiving of data.

11 (b) PURPOSES.—The purposes of this part are to es-
12 tablish climate and other global change data management
13 and archiving as Federal agency missions, and to establish
14 Federal policies for managing and archiving climate and
15 other global change data.

16 **SEC. 4632. DEFINITIONS.**

17 For purposes of this part—

18 (1) the term “metadata” means information de-
19 scribing the content, quality, condition, and other
20 characteristics of climate and other global change
21 data, compiled, to the maximum extent possible, con-
22 sistent with the requirements of the “Content Stand-
23 ard for Digital Geospatial Metadata” (FGDC–STD–
24 001–1998) issued by the Federal Geographic Data

1 Committee, or any successor standard approved by
2 the working group; and

3 (2) the term “working group” means the inter-
4 agency climate and other global change data man-
5 agement working group established under section
6 4633.

7 **SEC. 4633. INTERAGENCY CLIMATE AND OTHER GLOBAL**
8 **CHANGE DATA MANAGEMENT WORKING**
9 **GROUP.**

10 (a) ESTABLISHMENT.—The President shall establish
11 or designate an interagency climate and other global
12 change data management working group to make rec-
13 ommendations for coordinating Federal climate and other
14 global change data management and archiving activities.

15 (b) MEMBERSHIP.—The working group shall include
16 the Administrator of the National Aeronautics and Space
17 Administration, the Administrator of the National Oceanic
18 and Atmospheric Administration, the Secretary of Energy,
19 the Secretary of Defense, the Director of the National
20 Science Foundation, the Director of the United States Ge-
21 ological Survey, the Archivist of the United States, the
22 Administrator of the Environmental Protection Agency,
23 the Secretary of the Smithsonian Institution, or their des-
24 ignees, and representatives of any other Federal agencies
25 the President considers appropriate.

1 (c) REPORTS.—Not later than 1 year after the date
2 of enactment of this Act, the working group shall transmit
3 a report to the Congress containing the elements described
4 in subsection (d). Not later than 4 years after the initial
5 report under this subsection, and at least once every 4
6 years thereafter, the working group shall transmit reports
7 updating the previous report. In preparing reports under
8 this subsection, the working group shall consult with ex-
9 pected users of the data collected and archived by the Pro-
10 gram.

11 (d) CONTENTS.—The reports and updates required
12 under subsection (c) shall—

13 (1) include recommendations for the establish-
14 ment, maintenance, and accessibility of a catalog
15 identifying all available climate and other global
16 change data sets;

17 (2) identify climate and other global change
18 data collections in danger of being lost and rec-
19 ommend actions to prevent such loss;

20 (3) identify gaps in climate and other global
21 change data and recommend actions to fill those
22 gaps;

23 (4) identify effective and compatible procedures
24 for climate and other global change data collection,
25 management, and retention and make recommenda-

1 tions for ensuring their use by Federal agencies and
2 other appropriate entities;

3 (5) develop and propose a coordinated strategy
4 for funding and allocating responsibilities among
5 Federal agencies for climate and other global change
6 data collection, management, and retention;

7 (6) make recommendations for ensuring that
8 particular attention is paid to the collection, man-
9 agement, and archiving of metadata;

10 (7) make recommendations for ensuring a uni-
11 fied and coordinated Federal capital investment
12 strategy with respect to climate and other global
13 change data collection, management, and archiving;

14 (8) evaluate the data record from each observ-
15 ing system and make recommendations to ensure
16 that delivered data are free from time-dependent bi-
17 ases and random errors before they are transferred
18 to long-term archives; and

19 (9) evaluate optimal design of observation sys-
20 tem components to ensure a cost-effective, adequate
21 set of observations detecting and tracking global
22 change.

Subtitle H—H-PRIZE

2 SEC. 4701. H-PRIZE.

3 Section 1008 of the Energy Policy Act of 2005 (42
4 U.S.C. 16396) is amended by adding at the end the fol-
5 lowing new subsection:

6 “(f) H-PRIZE.—

7 “(1) PRIZE AUTHORITY.—

8 “(A) IN GENERAL.—As part of the pro-
9 gram under this section, the Secretary shall
10 carry out a program to competitively award
11 cash prizes in conformity with this subsection
12 to advance the research, development, dem-
13 onstration, and commercial application of hy-
14 drogen energy technologies.

15 “(B) ADVERTISING AND SOLICITATION OF
16 COMPETITORS.—

17 “(i) ADVERTISING.—The Secretary
18 shall widely advertise prize competitions
19 under this subsection to encourage broad
20 participation, including by individuals, uni-
21 versities (including historically Black col-
22 leges and universities and other minority
23 serving institutions), and large and small
24 businesses (including businesses owned or

1 controlled by socially and economically dis-
2 advantaged persons).

3 “(ii) ANNOUNCEMENT THROUGH FED-
4 ERAL REGISTER NOTICE.—The Secretary
5 shall announce each prize competition
6 under this subsection by publishing a no-
7 tice in the Federal Register. This notice
8 shall include essential elements of the com-
9 petition such as the subject of the competi-
10 tion, the duration of the competition, the
11 eligibility requirements for participation in
12 the competition, the process for partici-
13 pants to register for the competition, the
14 amount of the prize, and the criteria for
15 awarding the prize.

16 “(C) ADMINISTERING THE COMPETI-
17 TIONS.—The Secretary shall enter into an
18 agreement with a private, nonprofit entity to
19 administer the prize competitions under this
20 subsection, subject to the provisions of this sub-
21 section (in this subsection referred to as the
22 ‘administering entity’). The duties of the ad-
23 ministering entity under the agreement shall in-
24 clude—

1 “(i) advertising prize competitions
2 under this subsection and their results;

3 “(ii) raising funds from private enti-
4 ties and individuals to pay for administra-
5 tive costs and to contribute to cash prizes,
6 including funds provided in exchange for
7 the right to name a prize awarded under
8 this subsection;

9 “(iii) developing, in consultation with
10 and subject to the final approval of the
11 Secretary, the criteria for selecting winners
12 in prize competitions under this subsection,
13 based on goals provided by the Secretary;

14 “(iv) determining, in consultation with
15 the Secretary, the appropriate amount and
16 funding sources for each prize to be award-
17 ed under this subsection, subject to the
18 final approval of the Secretary with respect
19 to Federal funding;

20 “(v) providing advice and consultation
21 to the Secretary on the selection of judges
22 in accordance with paragraph (2)(D),
23 using criteria developed in consultation
24 with and subject to the final approval of
25 the Secretary; and

1 “(vi) protecting against the admin-
2 istering entity’s unauthorized use or disclo-
3 sure of a registered participant’s trade se-
4 crets and confidential business informa-
5 tion. Any information properly identified
6 as trade secrets or confidential business in-
7 formation that is submitted by a partici-
8 pant as part of a competitive program
9 under this subsection may be withheld
10 from public disclosure.

11 “(D) FUNDING SOURCES.—Prizes under
12 this subsection shall consist of Federal appro-
13 priated funds and any funds provided by the
14 administering entity (including funds raised
15 pursuant to subparagraph (C)(ii)) for such cash
16 prize programs. The Secretary may accept
17 funds from other Federal agencies for such
18 cash prizes and, notwithstanding section
19 3302(b) of title 31, United States Code, may
20 use such funds for the cash prize program
21 under this subsection. Other than publication of
22 the names of prize sponsors, the Secretary may
23 not give any special consideration to any private
24 sector entity or individual in return for a dona-
25 tion to the Secretary or administering entity.

1 “(E) ANNOUNCEMENT OF PRIZES.—The
2 Secretary may not issue a notice required by
3 subparagraph (B)(ii) until all the funds needed
4 to pay out the announced amount of the prize
5 have been appropriated or committed in writing
6 by the administering entity. The Secretary may
7 increase the amount of a prize after an initial
8 announcement is made under subparagraph
9 (B)(ii) if—

10 “(i) notice of the increase is provided
11 in the same manner as the initial notice of
12 the prize; and

13 “(ii) the funds needed to pay out the
14 announced amount of the increase have
15 been appropriated or committed in writing
16 by the administering entity.

17 “(F) SUNSET.—The authority to announce
18 prize competitions under this subsection shall
19 terminate on September 30, 2018.

20 “(2) PRIZE CATEGORIES.—

21 “(A) CATEGORIES.—The Secretary shall
22 establish prizes under this subsection for—

23 “(i) advancements in technologies,
24 components, or systems related to—

25 “(I) hydrogen production;

1 “(II) hydrogen storage;

2 “(III) hydrogen distribution; and

3 “(IV) hydrogen utilization;

4 “(ii) prototypes of hydrogen-powered
5 vehicles or other hydrogen-based products
6 that best meet or exceed objective perform-
7 ance criteria, such as completion of a race
8 over a certain distance or terrain or gen-
9 eration of energy at certain levels of effi-
10 ciency; and

11 “(iii) transformational changes in
12 technologies for the distribution or produc-
13 tion of hydrogen that meet or exceed far-
14 reaching objective criteria, which shall in-
15 clude minimal carbon emissions and which
16 may include cost criteria designed to facili-
17 tate the eventual market success of a win-
18 ning technology.

19 “(B) AWARDS.—

20 “(i) ADVANCEMENTS.—To the extent
21 permitted under paragraph (1)(E), the
22 prizes authorized under subparagraph
23 (A)(i) shall be awarded biennially to the
24 most significant advance made in each of
25 the four subcategories described in sub-

1 clauses (I) through (IV) of subparagraph
2 (A)(i) since the submission deadline of the
3 previous prize competition in the same cat-
4 egory under subparagraph (A)(i) or the
5 date of enactment of this subsection,
6 whichever is later, unless no such advance
7 is significant enough to merit an award.
8 No one such prize may exceed \$1,000,000.
9 If less than \$4,000,000 is available for a
10 prize competition under subparagraph
11 (A)(i), the Secretary may omit one or more
12 subcategories, reduce the amount of the
13 prizes, or not hold a prize competition.

14 “(ii) PROTOTYPES.—To the extent
15 permitted under paragraph (1)(E), prizes
16 authorized under subparagraph (A)(ii)
17 shall be awarded biennially in alternate
18 years from the prizes authorized under
19 subparagraph (A)(i). The Secretary is au-
20 thorized to award up to one prize in this
21 category in each 2-year period. No such
22 prize may exceed \$4,000,000. If no reg-
23 istered participants meet the objective per-
24 formance criteria established pursuant to
25 subparagraph (C) for a competition under

1 this clause, the Secretary shall not award
2 a prize.

3 “(iii) TRANSFORMATIONAL TECH-
4 NOLOGIES.—To the extent permitted under
5 paragraph (1)(E), the Secretary shall an-
6 nounce one prize competition authorized
7 under subparagraph (A)(iii) as soon after
8 the date of enactment of this subsection as
9 is practicable. A prize offered under this
10 clause shall be not less than \$10,000,000,
11 paid to the winner in a lump sum, and an
12 additional amount paid to the winner as a
13 match for each dollar of private funding
14 raised by the winner for the hydrogen tech-
15 nology beginning on the date the winner
16 was named. The match shall be provided
17 for 3 years after the date the prize winner
18 is named or until the full amount of the
19 prize has been paid out, whichever occurs
20 first. A prize winner may elect to have the
21 match amount paid to another entity that
22 is continuing the development of the win-
23 ning technology. The Secretary shall an-
24 nounce the rules for receiving the match in
25 the notice required by paragraph

1 (1)(B)(ii). The Secretary shall award a
2 prize under this clause only when a reg-
3 istered participant has met the objective
4 criteria established for the prize pursuant
5 to subparagraph (C) and announced pursu-
6 ant to paragraph (1)(B)(ii). Not more than
7 \$10,000,000 in Federal funds may be used
8 for the prize award under this clause. The
9 administering entity shall seek to raise
10 \$40,000,000 toward the matching award
11 under this clause.

12 “(C) CRITERIA.—In establishing the cri-
13 teria required by this subsection, the Sec-
14 retary—

15 “(i) shall consult with the Depart-
16 ment’s Hydrogen Technical and Fuel Cell
17 Advisory Committee;

18 “(ii) shall consult with other Federal
19 agencies, including the National Science
20 Foundation; and

21 “(iii) may consult with other experts
22 such as private organizations, including
23 professional societies, industry associa-
24 tions, and the National Academy of

1 Sciences and the National Academy of En-
2 gineering.

3 “(D) JUDGES.—For each prize competition
4 under this subsection, the Secretary in con-
5 sultation with the administering entity shall as-
6 semble a panel of qualified judges to select the
7 winner or winners on the basis of the criteria
8 established under subparagraph (C). Judges for
9 each prize competition shall include individuals
10 from outside the Department, including from
11 the private sector. A judge, spouse, minor chil-
12 dren, and members of the judge’s household
13 may not—

14 “(i) have personal or financial inter-
15 ests in, or be an employee, officer, director,
16 or agent of, any entity that is a registered
17 participant in the prize competition for
18 which he or she will serve as a judge; or

19 “(ii) have a familial or financial rela-
20 tionship with an individual who is a reg-
21 istered participant in the prize competition
22 for which he or she will serve as a judge.

23 “(3) ELIGIBILITY.—To be eligible to win a
24 prize under this subsection, an individual or entity—

1 “(A) shall have complied with all the re-
2 quirements in accordance with the Federal Reg-
3 ister notice required under paragraph
4 (1)(B)(ii);

5 “(B) in the case of a private entity, shall
6 be incorporated in and maintain a primary
7 place of business in the United States, and in
8 the case of an individual, whether participating
9 singly or in a group, shall be a citizen of, or an
10 alien lawfully admitted for permanent residence
11 in, the United States; and

12 “(C) shall not be a Federal entity, a Fed-
13 eral employee acting within the scope of his em-
14 ployment, or an employee of a national labora-
15 tory acting within the scope of his employment.

16 “(4) INTELLECTUAL PROPERTY.—The Federal
17 Government shall not, by virtue of offering or
18 awarding a prize under this subsection, be entitled
19 to any intellectual property rights derived as a con-
20 sequence of, or direct relation to, the participation
21 by a registered participant in a competition author-
22 ized by this subsection. This paragraph shall not be
23 construed to prevent the Federal Government from
24 negotiating a license for the use of intellectual prop-

erty developed for a prize competition under this subsection.

“(5) LIABILITY.—

“(A) WAIVER OF LIABILITY.—The Secretary may require registered participants to waive claims against the Federal Government and the administering entity (except claims for willful misconduct) for any injury, death, damage, or loss of property, revenue, or profits arising from the registered participants’ participation in a competition under this subsection. The Secretary shall give notice of any waiver required under this subparagraph in the notice required by paragraph (1)(B)(ii). The Secretary may not require a registered participant to waive claims against the administering entity arising out of the unauthorized use or disclosure by the administering entity of the registered participant’s trade secrets or confidential business information.

“(B) LIABILITY INSURANCE.—

“(i) REQUIREMENTS.—Registered participants in a prize competition under this subsection shall be required to obtain liability insurance or demonstrate financial

1 responsibility, in amounts determined by
2 the Secretary, for claims by—

3 “(I) a third party for death, bod-
4 ily injury, or property damage or loss
5 resulting from an activity carried out
6 in connection with participation in a
7 competition under this subsection; and

8 “(II) the Federal Government for
9 damage or loss to Government prop-
10 erty resulting from such an activity.

11 “(ii) FEDERAL GOVERNMENT IN-
12 SURED.—The Federal Government shall be
13 named as an additional insured under a
14 registered participant’s insurance policy re-
15 quired under clause (i)(I), and registered
16 participants shall be required to agree to
17 indemnify the Federal Government against
18 third party claims for damages arising
19 from or related to competition activities
20 under this subsection.

21 “(6) REPORT TO CONGRESS.—Not later than
22 60 days after the awarding of the first prize under
23 this subsection, and annually thereafter, the Sec-
24 retary shall transmit to the Congress a report
25 that—

1 “(A) identifies each award recipient;

2 “(B) describes the technologies developed
3 by each award recipient; and

4 “(C) specifies actions being taken toward
5 commercial application of all technologies with
6 respect to which a prize has been awarded
7 under this subsection.

8 “(7) AUTHORIZATION OF APPROPRIATIONS.—

9 “(A) IN GENERAL.—

10 “(i) AWARDS.—There are authorized
11 to be appropriated to the Secretary for the
12 period encompassing fiscal years 2008
13 through 2017 for carrying out this sub-
14 section—

15 “(I) \$20,000,000 for awards de-
16 scribed in paragraph (2)(A)(i);

17 “(II) \$20,000,000 for awards de-
18 scribed in paragraph (2)(A)(ii); and

19 “(III) \$10,000,000 for the award
20 described in paragraph (2)(A)(iii).

21 “(ii) ADMINISTRATION.—In addition
22 to the amounts authorized in clause (i),
23 there are authorized to be appropriated to
24 the Secretary for each of fiscal years 2008

1 and 2009 \$2,000,000 for the administra-
 2 tive costs of carrying out this subsection.

3 “(B) CARRYOVER OF FUNDS.—Funds ap-
 4 propriated for prize awards under this sub-
 5 section shall remain available until expended,
 6 and may be transferred, reprogrammed, or ex-
 7 pended for other purposes only after the expira-
 8 tion of 10 fiscal years after the fiscal year for
 9 which the funds were originally appropriated.
 10 No provision in this subsection permits obliga-
 11 tion or payment of funds in violation of section
 12 1341 of title 31 of the United States Code
 13 (commonly referred to as the Anti-Deficiency
 14 Act).

15 “(8) NONSUBSTITUTION.—The programs cre-
 16 ated under this subsection shall not be considered a
 17 substitute for Federal research and development
 18 programs.”.

19 **TITLE V—AGRICULTURE** 20 **ENERGY**

21 **SEC. 5001. TABLE OF CONTENTS.**

22 Title IX of the Farm Security and Rural Investment
 23 Act of 2002 (7 U.S.C. 8101 et seq.) is amended by insert-
 24 ing before section 9001 the following new section:

1 **“SEC. 9000. TABLE OF CONTENTS.**

2 “The table of contents of this title is as follows:

“TITLE IX—ENERGY

“Sec. 9000. Table of contents.

“Sec. 9001. Definitions.

“Sec. 9002. Federal procurement of biobased products.

“Sec. 9003. Biorefinery development grants; loan guarantees for biorefineries
and biofuel production plants.

“Sec. 9004. Biodiesel fuel education program.

“Sec. 9005. Energy audit and renewable energy development program.

“Sec. 9006. Rural energy for America program.

“Sec. 9007. Hydrogen and fuel cell technologies.

“Sec. 9008. Biomass Research and Development Act of 2000.

“Sec. 9009. Cooperative research and extension projects.

“Sec. 9010. Continuation of bioenergy program.

“Sec. 9011. Research, extension, and educational programs on biobased energy
technologies and products.

“Sec. 9012. Energy Council of the Department of Agriculture.

“Sec. 9013. Forest bioenergy research program.”.

3 **SEC. 5002. FEDERAL PROCUREMENT OF BIOBASED PROD-**
4 **UCTS.**

5 Section 9002 of the Farm Security and Rural Invest-
6 ment Act of 2002 (7 U.S.C. 8102) is amended—

7 (1) in subsection (c)(1), by inserting “, com-
8 posed of at least five percent of intermediate ingredi-
9 ents and feedstocks (such as biopolymers, methyl
10 soyate, and soy polyols) as designated by the Sec-
11 retary,” after “highest percentage of biobased prod-
12 ucts practicable”;

13 (2) by striking subsection (h)(2) and inserting
14 the following:

15 “(2) ELIGIBILITY CRITERIA.—

16 “(A) IN GENERAL.—Not later than 90
17 days after the date of the enactment of the New

1 Direction for Energy Independence, National
2 Security, and Consumer Protection Act, the
3 Secretary, in consultation with other Federal
4 departments and agencies and with non-govern-
5 mental groups with an interest in biobased
6 products, including small and large producers
7 of biobased materials and products, industry,
8 trade organizations, academia, consumer orga-
9 nizations, and environmental organizations,
10 shall issue criteria for determining which prod-
11 ucts may qualify to receive the label under
12 paragraph (1). The criteria shall encourage the
13 purchase of products with the maximum
14 biobased content, and should, to the maximum
15 extent possible, be consistent with the guide-
16 lines issued under subsection (e).

17 “(B) INTERMEDIATE INGREDIENTS.—The
18 criteria issued under subparagraph (A) shall
19 provide that the Secretary may designate inter-
20 mediate ingredients and feedstocks (such as
21 biopolymers, methyl soyate, and soy polyols) as
22 biobased for the purposes of the voluntary pro-
23 gram established under this subsection.”; and

24 (3) by striking subsection (k)(2)(A) and insert-
25 ing the following:

1 “(A) IN GENERAL.—Of the funds of the
 2 Commodity Credit Corporation, the Secretary
 3 shall use \$2,000,000 for each of fiscal years
 4 2008 through 2012 for bio-product testing and
 5 support ongoing operations of the Designation
 6 Program, the Voluntary Labeling Program,
 7 procurement program models, procurement re-
 8 search, promotion, education, and awareness of
 9 the BioPreferred Program.”.

10 **SEC. 5003. LOAN GUARANTEES FOR BIOREFINERIES AND**
 11 **BIOFUEL PRODUCTION PLANTS.**

12 Section 9003 of the Farm Security and Rural Invest-
 13 ment Act of 2002 (7 U.S.C. 8103) is amended—

14 (1) in the section heading, by inserting “;
 15 **LOAN GUARANTEES FOR BIOREFINERIES AND**
 16 **BIOFUEL PRODUCTION PLANTS”** after
 17 **“GRANTS”**;

18 (2) in subsection (b)(2)(A), by striking “and”
 19 the 1st place it appears and inserting “or”;

20 (3) in subsection (c), by redesignating sub-
 21 section (h) as subsection (j) and subsections (d)
 22 through (g) as subsections (e) through (h), respec-
 23 tively, and inserting after subsection (c) the fol-
 24 lowing:

25 “(d) LOAN GUARANTEES.—

1 “(1) IN GENERAL.—The Secretary shall make
2 loan guarantees to eligible entities to assist in pay-
3 ing the cost of development and construction of bio-
4 refineries and biofuel production plants (including
5 retrofitting) to carry out projects to demonstrate the
6 commercial viability of 1 or more processes for con-
7 verting biomass to fuels or chemicals.

8 “(2) LIMITATIONS.—

9 “(A) MAXIMUM PERCENTAGE OF LOAN
10 GUARANTEED.—A loan guarantee under para-
11 graph (1) shall be for not more than 90 percent
12 of the principal and interest due on the loan.

13 “(B) TOTAL AMOUNTS GUARANTEED.—
14 The total amount of principal and interest
15 guaranteed under paragraph (1) shall not ex-
16 ceed—

17 “(i) \$600,000,000, in the case of
18 loans valued at not more than
19 \$100,000,000; or

20 “(ii) \$1,000,000,000, in the case of
21 loans valued at more than \$100,000,000
22 but not more than \$250,000,000.

23 “(C) MAXIMUM TERM OF LOAN GUARAN-
24 TEED.—The Secretary shall determine the max-

1 imum term of a loan guarantee provided under
2 paragraph (1).”;

3 (4) in subsection (f) (as so redesignated)—

4 (A) in paragraph (1), by inserting “and
5 loan guarantees under subsection (d)” after
6 “(c)”;

7 (B) in paragraph (2)(A), by inserting “or
8 loan guarantees under subsection (d)” after
9 “(c)”;

10 (C) in paragraph (2)(B)—

11 (i) by striking “and” at the end of
12 clause (viii);

13 (ii) by striking the period at the end
14 of clause (ix) and inserting “; and”; and

15 (iii) by adding at the end the fol-
16 lowing:

17 “(x) The level of local ownership.”;

18 and

19 (D) by adding at the end the following:

20 “(3) PRIORITY IN AWARDING LOAN GUARAN-
21 TEES.—In selecting projects to receive loan guaran-
22 tees under subsection (d), the Secretary shall give
23 priority to projects based on the criteria set forth in
24 paragraph (2)(B) of this subsection.”;

1 (5) by inserting after subsection (h) the fol-
2 lowing new subsection:

3 “(i) CONDITION OF PROVISION OF ASSISTANCE.—As
4 a condition of receiving a grant or loan guarantee under
5 this section, the eligible entity shall ensure that all labor-
6 ers and mechanics employed by contractors or subcontrac-
7 tors in the performance of construction work financed in
8 whole or in part with the grant or loan guarantee, as the
9 case may be, shall be paid wages at rates not less than
10 those prevailing on similar construction in the locality, as
11 determined by the Secretary of Labor in accordance with
12 sections 3141 through 3144, 3146, and 3147 of title 40,
13 United States Code. The Secretary of Labor shall have,
14 with respect to such labor standards, the authority and
15 functions set forth in Reorganization Plan Numbered 14
16 of 1950 (15 Fed. Reg. 3176; 64 Stat. 1267) and section
17 3145 of such title.”;

18 (6) in subsection (j) (as so redesignated), by
19 striking “2007” and inserting “2012”; and

20 (7) by adding at the end the following new sub-
21 sections:

22 “(k) ADDITIONAL FUNDING FOR LOAN GUARAN-
23 TEES.—Of the funds of the Commodity Credit Corpora-
24 tion, the Secretary shall use to carry out this section—

25 “(1) \$50,000,000 for fiscal year 2008;

- 1 “(2) \$65,000,000 for fiscal year 2009;
2 “(3) \$75,000,000 for fiscal year 2010;
3 “(4) \$150,000,000 for fiscal year 2011; and
4 “(5) \$250,000,000 for fiscal year 2012.

5 “(1) CONTINUATION OF OPERATIONS.—

6 “(1) FUNDING.—The Secretary shall continue
7 to carry out this section at the rate of operation in
8 effect on September 30, 2012, from sums in the
9 Treasury not otherwise appropriated, through Sep-
10 tember 30, 2017.

11 “(2) AUTHORITY.—The program and authori-
12 ties provided under this section shall continue in
13 force and effect through September 30, 2017.”.

14 **SEC. 5004. BIODIESEL FUEL EDUCATION PROGRAM.**

15 Section 9004(d) of the Farm Security and Rural In-
16 vestment Act of 2002 (7 U.S.C. 8104(d)) is amended to
17 read as follows:

18 “(d) FUNDING.—Of the funds of the Commodity
19 Credit Corporation, the Secretary of Agriculture shall
20 make available to carry out this section \$2,000,000 for
21 each of fiscal years 2008 through 2012.”.

1 **SEC. 5005. ENERGY AUDIT AND RENEWABLE ENERGY DE-**
2 **VELOPMENT PROGRAM.**

3 Section 9005(i) of the Farm Security and Rural In-
4 vestment Act of 2002 (7 U.S.C. 8105) is amended by
5 striking “2007” and inserting “2012”.

6 **SEC. 5006. RENEWABLE ENERGY SYSTEMS AND ENERGY EF-**
7 **FICIENCY IMPROVEMENTS.**

8 Section 9006 of the Farm Security and Rural Invest-
9 ment Act of 2002 (7 U.S.C. 8106) is amended—

10 (1) by striking the section heading and insert-
11 ing the following:

12 **“SEC. 9006. RURAL ENERGY FOR AMERICA PROGRAM.”;**

13 (2) in subsection (a)—

14 (A) in the matter preceding paragraph (1),
15 by inserting “, other agricultural producer”
16 after “rancher”;

17 (B) in paragraph (1), by striking “and” at
18 the end;

19 (C) in paragraph (2), by striking the pe-
20 riod and inserting “; and”; and

21 (D) by adding at the end the following new
22 paragraph:

23 “(3) produce and sell electricity generated by
24 new renewable energy systems.”;

25 (3) in subsection (b), by inserting “, other agri-
26 cultural producer” after “rancher”;

1 (4) in subsection (c)—

2 (A) in paragraph (1)—

3 (i) in subparagraph (B), by striking
4 “50 percent” and inserting “75 percent”;
5 and

6 (ii) by redesignating subparagraph
7 (B) as subparagraph (C) and inserting
8 after subparagraph (A) the following:

9 “(B) LOAN GUARANTEES.—

10 “(i) MAXIMUM AMOUNT.—The
11 amount of a loan guaranteed under this
12 section shall not exceed \$25,000,000.

13 “(ii) MAXIMUM PERCENTAGE.—A loan
14 guaranteed under this section shall not ex-
15 ceed 75 percent of the cost of the activity
16 funded under subsection (a).”; and

17 (B) by adding at the end the following new
18 paragraph:

19 “(3) PRIORITIZATION.—The Secretary shall
20 give the greatest priority for grants under subsection
21 (a) to activities for which the least percentage of the
22 total cost of such activities is requested by the farm-
23 er, rancher, other agricultural producer, or rural
24 small business.”.

1 (5) by redesignating subsection (e) as sub-
2 section (g) and striking subsection (f);

3 (6) by inserting after subsection (d) the fol-
4 lowing new subsections:

5 “(e) FEASIBILITY STUDIES.—

6 “(1) IN GENERAL.—The Secretary may provide
7 assistance to a farmer, rancher, other agricultural
8 producer, or rural small business to conduct a feasi-
9 bility study of a project for which assistance may be
10 provided under this section.

11 “(2) LIMITATION.—The Secretary shall use not
12 more than 10 percent of the funds made available to
13 carry out this section to provide assistance described
14 in paragraph (1).

15 “(3) CRITERIA.—The Secretary shall issue reg-
16 ulations establishing criteria for the receipt of assist-
17 ance under this subsection.

18 “(4) AVOIDANCE OF DUPLICATIVE ASSIST-
19 ANCE.—An farmer, rancher, other agricultural pro-
20 ducer, or rural small business that receives assist-
21 ance to carry out a feasibility study for a project
22 under this subsection shall not be eligible for assist-
23 ance to carry out a feasibility study for the project
24 under any other provision of law.

25 “(f) SMALL ACTIVITIES.—

1 “(1) LIMITATION ON USE OF FUNDS.—The Sec-
2 retary shall use not less than 15 percent of the
3 funds made available under subsection (h) to provide
4 grants for activities that have a cost of \$50,000 or
5 less.

6 “(2) EXCEPTION.—Beginning on the first day
7 of the third quarter of a fiscal year, the limitation
8 on the use of funds under paragraph (1) shall not
9 apply to funds made available under subsection (h)
10 for such fiscal year.”; and

11 (7) by adding at the end the following new sub-
12 section:

13 “(h) FUNDING.—

14 “(1) IN GENERAL.—Of the funds of the Com-
15 modity Credit Corporation, the Secretary of Agri-
16 culture shall make available to carry out this sec-
17 tion—

18 “(A) \$40,000,000 for fiscal year 2008;

19 “(B) \$60,000,000 for fiscal year 2009;

20 “(C) \$75,000,000 for fiscal year 2010;

21 “(D) \$100,000,000 for fiscal year 2011;

22 and

23 “(E) \$150,000,000 for fiscal year 2012.

24 “(3) CONTINUATION OF OPERATIONS.—

1 “(A) FUNDING.—The Secretary shall con-
 2 tinue to carry out this section at the rate of op-
 3 eration in effect on September 30, 2012, from
 4 sums in the Treasury not otherwise appro-
 5 priated, through September 30, 2017.

6 “(B) AUTHORITY.—The program and au-
 7 thorities provided under this section shall con-
 8 tinue in force and effect through September 30,
 9 2017.”.

10 **SEC. 5007. BIOMASS RESEARCH AND DEVELOPMENT ACT**
 11 **OF 2000.**

12 (a) RESTATEMENT OF ACT.—Section 9008 of the
 13 Farm Security and Rural Investment Act of 2002 (116
 14 Stat. 486) is amended to read as follows:

15 **“SEC. 9008. BIOMASS RESEARCH AND DEVELOPMENT ACT**
 16 **OF 2000.**

17 “(a) SHORT TITLE.—This section may be cited as the
 18 ‘Biomass Research and Development Act of 2000’.

19 “(b) FINDINGS.—Congress finds that—

20 “(1) conversion of biomass into biobased indus-
 21 trial products offers outstanding potential for benefit
 22 to the national interest through—

23 “(A) improved strategic security and bal-
 24 ance of payments;

25 “(B) healthier rural economies;

1 “(C) improved environmental quality;

2 “(D) near-zero net greenhouse gas emis-
3 sions;

4 “(E) technology export; and

5 “(F) sustainable resource supply;

6 “(2) the key technical challenges to be overcome
7 in order for biobased industrial products to be cost-
8 competitive are finding new technology and reducing
9 the cost of technology for converting biomass into
10 desired biobased industrial products;

11 “(3) biobased fuels have the clear potential to
12 be sustainable, low cost, and high performance fuels
13 that are compatible with both current and future
14 transportation systems and provide near-zero net
15 greenhouse gas emissions;

16 “(4) biobased chemicals have the clear potential
17 for environmentally benign product life cycles;

18 “(5) biobased power can—

19 “(A) provide environmental benefits;

20 “(B) promote rural economic development;

21 and

22 “(C) diversify energy resource options;

23 “(6) many biomass feedstocks suitable for in-
24 dustrial processing show the clear potential for sus-

1 tainable production, in some cases resulting in im-
2 proved soil fertility and carbon sequestration;

3 “(7)(A) grain processing mills are biorefineries
4 that produce a diversity of useful food, chemical,
5 feed, and fuel products; and

6 “(B) technologies that result in further diver-
7 sification of the range of value-added biobased in-
8 dustrial products can meet a key need for the grain
9 processing industry;

10 “(8)(A) cellulosic feedstocks are attractive be-
11 cause of their low cost and widespread availability;
12 and

13 “(B) research resulting in cost-effective tech-
14 nology to overcome the recalcitrance of cellulosic bio-
15 mass would allow biorefineries to produce fuels and
16 bulk chemicals on a very large scale, with a commen-
17 surately large realization of the benefit described in
18 paragraph (1);

19 “(9) research into the fundamentals to under-
20 stand important mechanisms of biomass conversion
21 can be expected to accelerate the application and ad-
22 vancement of biomass processing technology by—

23 “(A) increasing the confidence and speed
24 with which new technologies can be scaled up;
25 and

1 “(B) giving rise to processing innovations
2 based on new knowledge;

3 “(10) the added utility of biobased industrial
4 products developed through improvements in proc-
5 essing technology would encourage the design of
6 feedstocks that would meet future needs more effec-
7 tively;

8 “(11) the creation of value-added biobased in-
9 dustrial products would create new jobs in construc-
10 tion, manufacturing, and distribution, as well as new
11 higher-valued exports of products and technology;

12 “(12)(A) because of the relatively short-term
13 time horizon characteristic of private sector invest-
14 ments, and because many benefits of biomass proc-
15 essing are in the national interest, it is appropriate
16 for the Federal Government to provide
17 precommercial investment in fundamental research
18 and research-driven innovation in the biomass proc-
19 essing area; and

20 “(B) such an investment would provide a valu-
21 able complement to ongoing and past governmental
22 support in the biomass processing area; and

23 “(13) several prominent studies, including stud-
24 ies by the President’s Committee of Advisors on

1 Science and Technology and the National Research
2 Council—

3 “(A) support the potential for large re-
4 search-driven advances in technologies for pro-
5 duction of biobased industrial products as well
6 as associated benefits; and

7 “(B) document the need for a focused, in-
8 tegrated, and innovation-driven research effort
9 to provide the appropriate progress in a timely
10 manner.

11 “(c) DEFINITIONS.—In this section:

12 “(1) ADVISORY COMMITTEE.—The term ‘Advi-
13 sory Committee’ means the Biomass Research and
14 Development Technical Advisory Committee estab-
15 lished by this section.

16 “(2) BIOBASED FUEL.—The term ‘biobased
17 fuel’ means any transportation or heating fuel pro-
18 duced from biomass.

19 “(3) BIOBASED PRODUCT.—The term ‘biobased
20 product’ means an industrial product (including
21 chemicals, materials, and polymers) produced from
22 biomass, or a commercial or industrial product (in-
23 cluding animal feed and electric power) derived in
24 connection with the conversion of biomass to fuel.

1 “(4) BIOMASS.—The term ‘biomass’ means any
2 organic matter that is available on a renewable or
3 recurring basis, including agricultural crops and
4 trees, wood and wood wastes and residues, plants
5 (including aquatic plants), grasses, residues, fibers,
6 and animal wastes, municipal wastes, and other
7 waste materials.

8 “(5) BOARD.—The term ‘Board’ means the
9 Biomass Research and Development Board estab-
10 lished by this section.

11 “(6) DEMONSTRATION.—The term ‘demonstra-
12 tion’ means demonstration of technology in a pilot
13 plant or semi-works scale facility.

14 “(7) INITIATIVE.—The term ‘Initiative’ means
15 the Biomass Research and Development Initiative
16 established under this section.

17 “(8) INSTITUTION OF HIGHER EDUCATION.—
18 The term ‘institution of higher education’ has the
19 meaning given the term in section 102(a) of the
20 Higher Education Act of 1965 (20 U.S.C. 1002(a)).

21 “(9) NATIONAL LABORATORY.—The term ‘Na-
22 tional Laboratory’ has the meaning given that term
23 in section 2 of the Energy Policy Act of 2005.

1 “(10) POINT OF CONTACT.—The term ‘point of
2 contact’ means a point of contact designated under
3 this section.

4 “(d) COOPERATION AND COORDINATION IN BIOMASS
5 RESEARCH AND DEVELOPMENT.—

6 “(1) IN GENERAL.—The Secretary of Agri-
7 culture and the Secretary of Energy shall cooperate
8 with respect to, and coordinate, policies and proce-
9 dures that promote research and development lead-
10 ing to the production of biobased fuels and biobased
11 products.

12 “(2) POINTS OF CONTACT.—

13 “(A) IN GENERAL.—To coordinate re-
14 search and development programs and activities
15 relating to biobased fuels and biobased products
16 that are carried out by their respective Depart-
17 ments—

18 “(i) the Secretary of Agriculture shall
19 designate, as the point of contact for the
20 Department of Agriculture, an officer of
21 the Department of Agriculture appointed
22 by the President to a position in the De-
23 partment before the date of the designa-
24 tion, by and with the advice and consent of
25 the Senate; and

1 “(ii) the Secretary of Energy shall
2 designate, as the point of contact for the
3 Department of Energy, an officer of the
4 Department of Energy appointed by the
5 President to a position in the Department
6 before the date of the designation, by and
7 with the advice and consent of the Senate.

8 “(B) DUTIES.—The points of contact shall
9 jointly—

10 “(i) assist in arranging interlabora-
11 tory and site-specific supplemental agree-
12 ments for research and development
13 projects relating to biobased fuels and
14 biobased products;

15 “(ii) serve as cochairpersons of the
16 Board;

17 “(iii) administer the Initiative; and

18 “(iv) respond in writing to each rec-
19 ommendation of the Advisory Committee
20 made under subsection (f).

21 “(e) BIOMASS RESEARCH AND DEVELOPMENT
22 BOARD.—

23 “(1) ESTABLISHMENT.—There is established
24 the Biomass Research and Development Board,
25 which shall supersede the Interagency Council on

1 Biobased Products and Bioenergy established by Ex-
2 ecutive Order No. 13134, to coordinate programs
3 within and among departments and agencies of the
4 Federal Government for the purpose of promoting
5 the use of biobased fuels and biobased products by—

6 “(A) maximizing the benefits deriving from

7 Federal grants and assistance; and

8 “(B) bringing coherence to Federal stra-
9 tegic planning.

10 “(2) MEMBERSHIP.—The Board shall consist
11 of—

12 “(A) the point of contact of the Depart-
13 ment of Energy designated under subsection
14 (d), who shall serve as cochairperson of the
15 Board;

16 “(B) the point of contact of the Depart-
17 ment of Agriculture designated under sub-
18 section (d), who shall serve as cochairperson of
19 the Board;

20 “(C) a senior officer of each of the Depart-
21 ment of the Interior, the Environmental Protec-
22 tion Agency, the National Science Foundation,
23 and the Office of Science and Technology Pol-
24 icy, each of whom shall—

1 “(i) be appointed by the head of the
2 respective agency; and

3 “(ii) have a rank that is equivalent to
4 the rank of the points of contact; and

5 “(D) at the option of the Secretary of Ag-
6 riculture and the Secretary of Energy, other
7 members appointed by the Secretaries (after
8 consultation with the members described in sub-
9 paragraphs (A) through (C)).

10 “(3) DUTIES.—The Board shall—

11 “(A) coordinate research and development
12 activities relating to biobased fuels and biobased
13 products—

14 “(i) between the Department of Agri-
15 culture and the Department of Energy;
16 and

17 “(ii) with other departments and
18 agencies of the Federal Government;

19 “(B) provide recommendations to the
20 points of contact concerning administration of
21 this title;

22 “(C) ensure that—

23 “(i) solicitations are open and com-
24 petitive with awards made annually; and

1 “(ii) objectives and evaluation criteria
2 of the solicitations are clearly stated and
3 minimally prescriptive, with no areas of
4 special interest; and

5 “(D) ensure that the panel of scientific
6 and technical peers assembled under subsection
7 (g) to review proposals is composed predomi-
8 nantly of independent experts selected from out-
9 side the Departments of Agriculture and En-
10 ergy.

11 “(4) FUNDING.—Each agency represented on
12 the Board is encouraged to provide funds for any
13 purpose under this section.

14 “(5) MEETINGS.—The Board shall meet at
15 least quarterly to enable the Board to carry out the
16 duties of the Board under paragraph (3).

17 “(f) BIOMASS RESEARCH AND DEVELOPMENT TECH-
18 NICAL ADVISORY COMMITTEE.—

19 “(1) ESTABLISHMENT.—There is established
20 the Biomass Research and Development Technical
21 Advisory Committee, which shall supersede the Advi-
22 sory Committee on Biobased Products and Bio-
23 energy established by Executive Order No. 13134—

1 “(A) to advise the Secretary of Energy, the
2 Secretary of Agriculture, and the points of con-
3 tact concerning—

4 “(i) the technical focus and direction
5 of requests for proposals issued under the
6 Initiative; and

7 “(ii) procedures for reviewing and
8 evaluating the proposals;

9 “(B) to facilitate consultations and part-
10 nerships among Federal and State agencies, ag-
11 ricultural producers, industry, consumers, the
12 research community, and other interested
13 groups to carry out program activities relating
14 to the Initiative; and

15 “(C) to evaluate and perform strategic
16 planning on program activities relating to the
17 Initiative.

18 “(2) MEMBERSHIP.—

19 “(A) IN GENERAL.—The Advisory Com-
20 mittee shall consist of—

21 “(i) an individual affiliated with the
22 biofuels industry;

23 “(ii) an individual affiliated with the
24 biobased industrial and commercial prod-
25 ucts industry;

1 “(iii) an individual affiliated with an
2 institution of higher education who has ex-
3 pertise in biobased fuels and biobased
4 products;

5 “(iv) two prominent engineers or sci-
6 entists from government or academia who
7 have expertise in biobased fuels and
8 biobased products;

9 “(v) an individual affiliated with a
10 commodity trade association;

11 “(vi) 2 individuals affiliated with an
12 environmental or conservation organiza-
13 tion;

14 “(vii) an individual associated with
15 State government who has expertise in
16 biobased fuels and biobased products;

17 “(viii) an individual with expertise in
18 energy and environmental analysis;

19 “(ix) an individual with expertise in
20 the economics of biobased fuels and
21 biobased products;

22 “(x) an individual with expertise in
23 agricultural economics; and

24 “(xi) at the option of the points of
25 contact, other members.

1 “(B) APPOINTMENT.—The members of the
2 Advisory Committee shall be appointed by the
3 points of contact.

4 “(3) DUTIES.—The Advisory Committee
5 shall—

6 “(A) advise the points of contact with re-
7 spect to the Initiative; and

8 “(B) evaluate whether, and make rec-
9 ommendations in writing to the Board to en-
10 sure that—

11 “(i) funds authorized for the Initiative
12 are distributed and used in a manner that
13 is consistent with the objectives, purposes,
14 and considerations of the Initiative;

15 “(ii) solicitations are open and com-
16 petitive with awards made annually and
17 that objectives and evaluation criteria of
18 the solicitations are clearly stated and
19 minimally prescriptive, with no areas of
20 special interest;

21 “(iii) the points of contact are funding
22 proposals under this title that are selected
23 on the basis of merit, as determined by an
24 independent panel of scientific and tech-
25 nical peers predominantly from outside the

1 Departments of Agriculture and Energy;
2 and

3 “(iv) activities under this section are
4 carried out in accordance with this section.

5 “(4) COORDINATION.—To avoid duplication of
6 effort, the Advisory Committee shall coordinate its
7 activities with those of other Federal advisory com-
8 mittees working in related areas.

9 “(5) MEETINGS.—The Advisory Committee
10 shall meet at least quarterly to enable the Advisory
11 Committee to carry out the duties of the Advisory
12 Committee.

13 “(6) TERMS.—Members of the Advisory Com-
14 mittee shall be appointed for a term of 3 years, ex-
15 cept that—

16 “(A) one-third of the members initially ap-
17 pointed shall be appointed for a term of 1 year;
18 and

19 “(B) one-third of the members initially ap-
20 pointed shall be appointed for a term of 2
21 years.

22 “(g) BIOMASS RESEARCH AND DEVELOPMENT INI-
23 TIATIVE.—

24 “(1) IN GENERAL.—The Secretary of Agri-
25 culture and the Secretary of Energy, acting through

1 their respective points of contact and in consultation
2 with the Board, shall establish and carry out a Bio-
3 mass Research and Development Initiative under
4 which competitively awarded grants, contracts, and
5 financial assistance are provided to, or entered into
6 with, eligible entities to carry out research on, and
7 development and demonstration of, biobased fuels
8 and biobased products, and the methods, practices
9 and technologies, for their production.

10 “(2) OBJECTIVES.—The objectives of the Initia-
11 tive are to develop—

12 “(A) technologies and processes necessary
13 for abundant commercial production of biobased
14 fuels at prices competitive with fossil fuels;

15 “(B) high-value biobased products—

16 “(i) to enhance the economic viability
17 of biobased fuels and power; and

18 “(ii) as substitutes for petroleum-
19 based feedstocks and products; and

20 “(C) a diversity of sustainable domestic
21 sources of biomass for conversion to biobased
22 fuels and biobased products.

23 “(3) PURPOSES.—The purposes of the Initiative
24 are—

1 “(A) to increase the energy security of the
2 United States;

3 “(B) to create jobs and enhance the eco-
4 nomic development of the rural economy;

5 “(C) to enhance the environment and pub-
6 lic health; and

7 “(D) to diversify markets for raw agricul-
8 tural and forestry products.

9 “(4) TECHNICAL AREAS.—To advance the ob-
10 jectives and purposes of the Initiative, the Secretary
11 of Agriculture and the Secretary of Energy, in con-
12 sultation with the Administrator of the Environ-
13 mental Protection Agency and heads of other appro-
14 priate departments and agencies (referred to in this
15 subsection as the ‘Secretaries’), shall direct research
16 and development toward—

17 “(A) feedstock production through the de-
18 velopment of crops and cropping systems rel-
19 evant to production of raw materials for conver-
20 sion to biobased fuels and biobased products,
21 including—

22 “(i) development of advanced and
23 dedicated crops with desired features, in-
24 cluding enhanced productivity, broader site

1 range, low requirements for chemical in-
2 puts, and enhanced processing;

3 “(ii) advanced crop production meth-
4 ods to achieve the features described in
5 clause (i);

6 “(iii) feedstock harvest, handling,
7 transport, and storage; and

8 “(iv) strategies for integrating feed-
9 stock production into existing managed
10 land;

11 “(B) overcoming recalcitrance of cellulosic
12 biomass through developing technologies for
13 converting cellulosic biomass into intermediates
14 that can subsequently be converted into
15 biobased fuels and biobased products, includ-
16 ing—

17 “(i) pretreatment in combination with
18 enzymatic or microbial hydrolysis; and

19 “(ii) thermochemical approaches, in-
20 cluding gasification and pyrolysis;

21 “(C) product diversification through tech-
22 nologies relevant to production of a range of
23 biobased products (including chemicals, animal
24 feeds, and cogenerated power) that eventually

1 can increase the feasibility of fuel production in
2 a biorefinery, including—

3 “(i) catalytic processing, including
4 thermochemical fuel production;

5 “(ii) metabolic engineering, enzyme
6 engineering, and fermentation systems for
7 biological production of desired products or
8 cogeneration of power;

9 “(iii) product recovery;

10 “(iv) power production technologies;

11 and

12 “(v) integration into existing biomass
13 processing facilities, including starch eth-
14 anol plants, sugar processing or refining
15 plants, paper mills, and power plants; and

16 “(D) analysis that provides strategic guid-
17 ance for the application of biomass technologies
18 in accordance with realization of improved sus-
19 tainability and environmental quality, cost ef-
20 fectiveness, security, and rural economic devel-
21 opment, usually featuring system-wide ap-
22 proaches.

23 “(5) ADDITIONAL CONSIDERATIONS.—Within
24 the technical areas described in paragraph (4), and
25 in addition to advancing the purposes described in

1 paragraph (3) and the objectives described in para-
2 graph (2), the Secretaries shall support research and
3 development—

4 “(A) to create continuously expanding op-
5 portunities for participants in existing biofuels
6 production by seeking synergies and continuity
7 with current technologies and practices, such as
8 the use of dried distillers grains as a bridge
9 feedstock;

10 “(B) to maximize the environmental, eco-
11 nomic, and social benefits of production of
12 biobased fuels and biobased products on a large
13 scale through life-cycle economic and environ-
14 mental analysis and other means; and

15 “(C) to assess the potential of Federal
16 land and land management programs as feed-
17 stock resources for biobased fuels and biobased
18 products, consistent with the integrity of soil
19 and water resources and with other environ-
20 mental considerations.

21 “(6) ELIGIBLE ENTITIES.—To be eligible for a
22 grant, contract, or assistance under this subsection,
23 an applicant shall be—

24 “(A) an institution of higher education;

25 “(B) a National Laboratory;

1 “(C) a Federal research agency;
2 “(D) a State research agency;
3 “(E) a private sector entity;
4 “(F) a nonprofit organization; or
5 “(G) a consortium of two or more entities
6 described in subparagraphs (A) through (F).

7 “(7) ADMINISTRATION.—

8 “(A) IN GENERAL.—After consultation
9 with the Board, the points of contact shall—

10 “(i) publish annually one or more
11 joint requests for proposals for grants,
12 contracts, and assistance under this sub-
13 section;

14 “(ii) require that grants, contracts,
15 and assistance under this section be
16 awarded competitively, on the basis of
17 merit, after the establishment of proce-
18 dures that provide for scientific peer review
19 by an independent panel of scientific and
20 technical peers; and

21 “(iii) give some preference to applica-
22 tions that—

23 “(I) involve a consortia of experts
24 from multiple institutions;

1 “(II) encourage the integration
2 of disciplines and application of the
3 best technical resources; and

4 “(III) increase the geographic di-
5 versity of demonstration projects.

6 “(B) DISTRIBUTION OF FUNDING BY
7 TECHNICAL AREA.—Of the funds authorized to
8 be appropriated for activities described in this
9 subsection, funds shall be distributed for each
10 of fiscal years 2007 through 2012 so as to
11 achieve an approximate distribution of—

12 “(i) 20 percent of the funds to carry
13 out activities for feedstock production
14 under paragraph (4)(A);

15 “(ii) 45 percent of the funds to carry
16 out activities for overcoming recalcitrance
17 of cellulosic biomass under paragraph
18 (4)(B);

19 “(iii) 30 percent of the funds to carry
20 out activities for product diversification
21 under paragraph (4)(C); and

22 “(iv) 5 percent of the funds to carry
23 out activities for strategic guidance under
24 paragraph (4)(D).

1 “(C) DISTRIBUTION OF FUNDING WITHIN
2 EACH TECHNICAL AREA.—Within each technical
3 area described in subparagraphs (A) through
4 (C) of paragraph (4), funds shall be distributed
5 for each of fiscal years 2007 through 2012 so
6 as to achieve an approximate distribution of—

7 “(i) 15 percent of the funds for ap-
8 plied fundamentals;

9 “(ii) 35 percent of the funds for inno-
10 vation; and

11 “(iii) 50 percent of the funds for dem-
12 onstration.

13 “(D) MATCHING FUNDS.—

14 “(i) IN GENERAL.—A minimum 20
15 percent funding match shall be required
16 for demonstration projects under this sec-
17 tion.

18 “(ii) COMMERCIAL APPLICATIONS.—A
19 minimum of 50 percent funding match
20 shall be required for commercial applica-
21 tion projects under this section.

22 “(E) TECHNOLOGY AND INFORMATION
23 TRANSFER TO AGRICULTURAL USERS.—The Ad-
24 ministrator of the Cooperative State Research,
25 Education, and Extension Service and the Chief

1 of the Natural Resources Conservation Service
2 shall ensure that applicable research results and
3 technologies from the Initiative are adapted,
4 made available, and disseminated through those
5 services, as appropriate.

6 “(h) ADMINISTRATIVE SUPPORT AND FUNDS.—

7 “(1) IN GENERAL.—To the extent administra-
8 tive support and funds are not provided by other
9 agencies under paragraph (2)(b), the Secretary of
10 Energy and the Secretary of Agriculture may pro-
11 vide such administrative support and funds of the
12 Department of Energy and the Department of Agri-
13 culture to the Board and the Advisory Committee as
14 are necessary to enable the Board and the Advisory
15 Committee to carry out their duties under this sec-
16 tion.

17 “(2) OTHER AGENCIES.—The heads of the
18 agencies referred to in subsection (e)(2)(C), and the
19 other members appointed under subsection
20 (e)(2)(D), may, and are encouraged to, provide ad-
21 ministrative support and funds of their respective
22 agencies to the Board and the Advisory Committee.

23 “(3) LIMITATION.—Not more than 4 percent of
24 the amount appropriated for each fiscal year under

1 subsection (g)(6) may be used to pay the adminis-
2 trative costs of carrying out this section.

3 “(i) REPORTS.—

4 “(1) ANNUAL REPORTS.—For each fiscal year
5 for which funds are made available to carry out this
6 section, the Secretary of Energy and the Secretary
7 of Agriculture shall jointly submit to Congress a de-
8 tailed report on—

9 “(A) the status and progress of the Initia-
10 tive, including a report from the Advisory Com-
11 mittee on whether funds appropriated for the
12 Initiative have been distributed and used in a
13 manner that—

14 “(i) is consistent with the objectives,
15 purposes, and additional considerations de-
16 scribed in paragraphs (2) through (5) of
17 subsection (g);

18 “(ii) uses the set of criteria estab-
19 lished in the initial report submitted under
20 title III of the Agricultural Risk Protection
21 Act of 2000;

22 “(iii) achieves the distribution of
23 funds described in subparagraphs (B) and
24 (C) of subsection (g)(7); and

1 “(iv) takes into account any rec-
2 ommendations that have been made by the
3 Advisory Committee;

4 “(B) the general status of cooperation and
5 research and development efforts carried out at
6 each agency with respect to biobased fuels and
7 biobased products, including a report from the
8 Advisory Committee on whether the points of
9 contact are funding proposals that are selected
10 under subsection (g)(3)(B)(iii); and

11 “(C) the plans of the Secretary of Energy
12 and the Secretary of Agriculture for addressing
13 concerns raised in the report, including con-
14 cerns raised by the Advisory Committee.

15 “(2) UPDATES.—The Secretary and the Sec-
16 retary of Energy shall update the Vision and Road-
17 map documents prepared for Federal biomass re-
18 search and development activities.

19 “(j) FUNDING.—

20 “(1) IN GENERAL.—Of the funds of the Com-
21 modity Credit Corporation, the Secretary of Agri-
22 culture shall make available to carry out this sec-
23 tion—

24 “(A) \$18,000,000 for fiscal year 2008;

25 “(B) \$28,000,000 for fiscal year 2009;

1 “(C) \$40,000,000 for fiscal year 2010;

2 “(D) \$50,000,000 for fiscal year 2011;

3 and

4 “(E) \$100,000,000 for fiscal year 2012.

5 “(2) CONTINUATION OF OPERATIONS.—

6 “(A) FUNDING.—The Secretary shall con-
7 tinue to carry out this section at the rate of op-
8 eration in effect on September 30, 2012, from
9 sums in the Treasury not otherwise appro-
10 priated, through September 30, 2017.

11 “(B) AUTHORITY.—The program and au-
12 thorities provided under this section shall con-
13 tinue in force and effect through September 30,
14 2017.”.

15 (b) REPEAL.—Title III of the Agricultural Risk Pro-
16 tection Act of 2000 (Public Law 106–224) is hereby re-
17 pealed.

18 **SEC. 5008. ADJUSTMENTS TO THE BIOENERGY PROGRAM.**

19 Section 9010 of the Farm Security and Rural Invest-
20 ment Act of 2002 (7 U.S.C. 8108) is amended—

21 (1) in subsection (a)—

22 (A) in paragraph (1)—

23 (i) in subparagraph (A), by striking

24 “and”;

1 (ii) in subparagraph (B), by striking
2 the final period and inserting a semicolon;
3 and

4 (iii) by adding at the end the fol-
5 lowing new subparagraphs:

6 “(C) production of heat and power at a
7 biofuels plant;

8 “(D) biomass gasification;

9 “(E) hydrogen made from cellulosic com-
10 modities for fuel cells;

11 “(F) renewable diesel; and

12 “(G) such other items as the Secretary
13 considers appropriate.”;

14 (B) by striking paragraph (3) and insert-
15 ing the following:

16 “(3) ELIGIBLE FEEDSTOCK.—

17 “(A) IN GENERAL.—The term ‘eligible
18 feedstock’ means—

19 “(i) any plant material grown or col-
20 lected for the purpose of being converted to
21 energy (including aquatic plants);

22 “(ii) any organic byproduct or residue
23 from agriculture and forestry, including
24 mill residues and pulping residues that can
25 be converted into energy;

1 “(iii) any waste material that can be
2 converted to energy and is derived from
3 plant material, including—

4 “(I) wood waste and residue;

5 “(II) specialty crop waste, includ-
6 ing waste derived from orchard trees,
7 vineyard crops, and nut crops; or

8 “(III) other fruit and vegetable
9 byproducts or residues; or

10 “(iv) animal waste and byproducts.

11 “(B) EXCLUSION.—The term ‘eligible feed-
12 stock’ does not include corn starch.”;

13 (C) in paragraph (4), by striking “an eligi-
14 ble commodity” and inserting “eligible feed-
15 stock”; and

16 (D) by adding at the end the following new
17 paragraph:

18 “(5) RENEWABLE DIESEL.—The term ‘renew-
19 able diesel’ means any type of biobased renewable
20 fuel derived from plant or animal matter that may
21 be used as a substitute for standard diesel fuel and
22 meets the requirements of an appropriate American
23 Society for Testing and Material standard. Such
24 term does not include any fuel derived from coproc-

1 essing an eligible feedstock with a feedstock that is
2 not biomass.”;

3 (2) in subsection (b)—

4 (A) in paragraph (1)—

5 (i) by striking “The Secretary shall
6 continue” and all that follows through “the
7 Secretary makes” and inserting “The Sec-
8 retary shall make”; and

9 (ii) by striking “eligible commodities”
10 and inserting “eligible feedstock”;

11 (B) in paragraph (2)(B), by striking “eligi-
12 ble commodities” and inserting “eligible feed-
13 stock”;

14 (C) in paragraph (3), by striking subpara-
15 graphs (B) and (C) and inserting the following:

16 “(B) PRIORITY.—In making payments
17 under this paragraph, the Secretary shall give
18 priority to contracts by considering the factors
19 referred to in section 9003(e)(2)(B).”; and

20 (D) by striking paragraph (6) and insert-
21 ing the following:

22 “(6) LIMITATION.—The Secretary may limit
23 the amount of payments that may be received by an
24 eligible producer under this section as the Secretary
25 considers appropriate.”; and

1 (3) by striking subsection (c) and inserting the
2 following:

3 “(c) FUNDING.—

4 “(1) IN GENERAL.—Of the funds of the Com-
5 modity Credit Corporation, the Secretary of Agri-
6 culture shall use to carry out this section—

7 “(A) \$150,000,000 for fiscal year 2008;

8 “(B) \$150,000,000 for fiscal year 2009;

9 “(C) \$170,000,000 for fiscal year 2010;

10 “(D) \$180,000,000 for fiscal year 2011;

11 and

12 “(E) \$286,000,000 for fiscal year 2012.

13 “(2) CONTINUATION OF OPERATIONS.—

14 “(A) FUNDING.—The Secretary shall con-
15 tinue to carry out this section at the rate of op-
16 eration in effect on September 30, 2012, from
17 sums in the Treasury not otherwise appro-
18 priated, through September 30, 2017.

19 “(B) AUTHORITY.—The program and au-
20 thorities provided under this section shall con-
21 tinue in force and effect through September 30,
22 2017.”.

1 **SEC. 5009. RESEARCH, EXTENSION, AND EDUCATIONAL**
2 **PROGRAMS ON BIOBASED ENERGY TECH-**
3 **NOLOGIES AND PRODUCTS.**

4 Section 9011(j)(1)(C) of the Farm Security and
5 Rural Investment Act of 2002 (7 U.S.C. 8109(j)(1)(C))
6 is amended by striking “2010” and inserting “2012”.

7 **SEC. 5010. ENERGY COUNCIL OF THE DEPARTMENT OF AG-**
8 **RICULTURE.**

9 Title IX of the Farm Security and Rural Investment
10 Act of 2002 (7 U.S.C. 8101 et seq.) is further amended
11 by adding at the end the following new section:

12 **“SEC. 9012. ENERGY COUNCIL OF THE DEPARTMENT OF AG-**
13 **RICULTURE.**

14 “(a) IN GENERAL.—The Secretary of Agriculture
15 shall establish an energy council in the Office of the Sec-
16 retary (in this section referred to as the ‘Council’) to co-
17 ordinate the energy policy of the Department of Agri-
18 culture and consult with other departments and agencies
19 of the Federal Government.

20 “(b) MEMBERSHIP.—

21 “(1) IN GENERAL.—The Secretary shall appoint
22 the members of the Council from among the staff of
23 the agencies and mission areas of the Department of
24 Agriculture with responsibilities relating to energy
25 programs or policies.

1 “(2) CHAIR.—The chief economist and the
2 Under Secretary for Rural Development of the De-
3 partment of Agriculture shall serve as the Chairs of
4 the Council.

5 “(c) DUTIES OF OFFICE OF ENERGY POLICY AND
6 NEW USES.—The Office of Energy Policy and New Uses
7 of the Department of Agriculture shall support the activi-
8 ties of the Council.”.

9 **SEC. 5011. FOREST BIOENERGY RESEARCH PROGRAM.**

10 Title IX of the Farm Security and Rural Investment
11 Act of 2002 (7 U.S.C. 8101 et seq.) is further amended
12 by adding at the end the following new section:

13 **“SEC. 9013. FOREST BIOENERGY RESEARCH PROGRAM.**

14 “(a) IN GENERAL.—The Secretary of Agriculture,
15 working through the Forest Service, in cooperation with
16 other Federal agencies, land grant colleges and univer-
17 sities, and private entities, shall conduct a competitive re-
18 search and development program to encourage new forest-
19 to-energy technologies. The Secretary may use grants, co-
20 operative agreements, and other methods to partner with
21 cooperating entities on projects that the Secretary deter-
22 mines shall best promote new forest-to-energy tech-
23 nologies.

24 “(b) PRIORITY FOR PROJECT SELECTION.—The Sec-
25 retary shall give priority to projects that—

1 “(1) develop technology and techniques to use
2 low value forest materials, such as byproducts of for-
3 est health treatments and hazardous fuel reduction,
4 for the production of energy;

5 “(2) develop processes for the conversion of cel-
6 lulosic forest materials that integrate production of
7 energy into existing manufacturing streams or in in-
8 tegrated forest biorefineries;

9 “(3) develop new transportation fuels that use
10 forest materials as a feedstock for the production of
11 such fuels; or

12 “(4) improve the of growth and yield of trees
13 for the purpose of renewable energy and other forest
14 product use.

15 “(c) FUNDING.—Of the funds of the Commodity
16 Credit Corporation, the Secretary of Agriculture shall
17 make available to carry out this section—

18 “(1) \$4,000,000 for fiscal year 2008;

19 “(2) \$6,000,000 for fiscal year 2009;

20 “(3) \$7,000,000 for fiscal year 2010;

21 “(4) \$9,000,000 for fiscal year 2011; and

22 “(5) \$10,000,000 for fiscal year 2012.”.

1 **SEC. 5012. FEEDSTOCK FLEXIBILITY PROGRAM FOR BIO-**
2 **ENERGY PRODUCERS.**

3 Title IX of the Farm Security and Rural Investment
4 Act of 2002 (7 U.S.C. 8101 et seq.) is further amended
5 by adding at the end the following new section:

6 **“SEC. 9014. FEEDSTOCK FLEXIBILITY PROGRAM FOR BIO-**
7 **ENERGY PRODUCERS.**

8 “(a) DEFINITIONS.—In this section:

9 “(1) BIOENERGY.—The term ‘bioenergy’ means
10 fuel grade ethanol and other biofuel.

11 “(2) BIOENERGY PRODUCER.—The term ‘bio-
12 energy producer’ means a producer of bioenergy that
13 uses an eligible commodity to produce bioenergy
14 under this section.

15 “(3) ELIGIBLE COMMODITY.—The term ‘eligible
16 commodity’ means a form of raw or refined sugar or
17 in-process sugar that is eligible to be marketed in
18 the United States for human consumption or to be
19 used for the extraction of sugar for human consump-
20 tion.

21 “(4) ELIGIBLE ENTITY.—The term ‘eligible en-
22 tity’ means an entity located in the United States
23 that markets an eligible commodity in the United
24 States.

25 “(b) FEEDSTOCK FLEXIBILITY PROGRAM.—

26 “(1) IN GENERAL.—

1 “(A) PURCHASES AND SALES.—For each
2 of fiscal years 2008 through 2012, the Sec-
3 retary shall purchase eligible commodities from
4 eligible entities and sell such commodities to
5 bioenergy producers for the purpose of pro-
6 ducing bioenergy in a manner that ensures that
7 156 of the Federal Agricultural Improvement
8 and Reform Act (7 U.S.C. 7272) is operated at
9 no cost to the Federal Government by avoiding
10 forfeitures to the Commodity Credit Corpora-
11 tion.

12 “(B) COMPETITIVE PROCEDURES.—In car-
13 rying out the purchases and sales required
14 under subparagraph (A), the Secretary shall, to
15 the maximum extent practicable, use competi-
16 tive procedures, including the receiving, offer-
17 ing, and accepting of bids, when entering into
18 contracts with eligible entities and bioenergy
19 producers, provided that such procedures are
20 consistent with the purposes of subparagraph
21 (A).

22 “(C) LIMITATION.—The purchase and sale
23 of eligible commodities under subparagraph (A)
24 shall only be made in fiscal years in which such
25 purchases and sales are necessary to ensure

1 that the program authorized under section 156
2 of the Federal Agriculture Improvement and
3 Reform Act (7 U.S.C. 7272) is operated at no
4 cost to the Federal Government by avoiding for-
5 feitures to the Commodity Credit Corporation.

6 “(2) NOTICE.—

7 “(A) IN GENERAL.—Not later than Sep-
8 tember 1, 2007, and each September 1 there-
9 after through fiscal year 2011, the Secretary
10 shall provide notice to eligible entities and bio-
11 energy producers of the quantity of eligible
12 commodities that shall be made available for
13 purchase and sale for the subsequent fiscal year
14 under this section.

15 “(B) REESTIMATES.—Not later than the
16 first day of each of the second through fourth
17 quarters of each of fiscal years 2008 through
18 2012, the Secretary shall reestimate the quan-
19 tity of eligible commodities determined under
20 subparagraph (A), and provide notice and make
21 purchases and sales based on such reestimates.

22 “(3) COMMODITY CREDIT CORPORATION INVEN-
23 TORY.—To the extent that an eligible commodity is
24 owned and held in inventory by the Commodity
25 Credit Corporation (accumulated pursuant to the

1 program authorized under section 156 of the Fed-
2 eral Agriculture Improvement and Reform Act (7
3 U.S.C. 7272)), the Secretary shall sell such com-
4 modity to bioenergy producers under this section.

5 “(4) TRANSFER RULE; STORAGE FEES.—

6 “(A) GENERAL TRANSFER RULE.—Except
7 as provided in subparagraph (C), the Secretary
8 shall ensure that bioenergy producers that pur-
9 chase eligible commodities pursuant to this sub-
10 section take possession of such commodities
11 within 30 calendar days of the date of such
12 purchase from the Commodity Credit Corpora-
13 tion.

14 “(B) PAYMENT OF STORAGE FEES PRO-
15 HIBITED.—

16 “(i) IN GENERAL.—The Secretary
17 shall, to the greatest extent practicable,
18 carry out this subsection in a manner that
19 ensures no storage fees are paid by the
20 Commodity Credit Corporation in the ad-
21 ministration of this subsection.

22 “(ii) EXCEPTION.—Clause (i) shall
23 not apply with respect to any commodities
24 owned and held in inventory by the Com-
25 modity Credit Corporation (accumulated

1 pursuant to the program authorized under
2 section 156 of the Federal Agriculture Im-
3 provement and Reform Act (7 U.S.C.
4 7272)).

5 “(C) OPTION TO PREVENT STORAGE
6 FEES.—

7 “(i) IN GENERAL.—The Secretary
8 may enter into contracts with bioenergy
9 producers to sell eligible commodities to
10 such producers prior in time to entering
11 into contracts with eligible entities to pur-
12 chase such commodities to be used to sat-
13 isfy the contracts entered into with the bio-
14 energy producers.

15 “(ii) SPECIAL TRANSFER RULE.—If
16 the Secretary makes a sale and purchase
17 referred to in clause (i), the Secretary shall
18 ensure that the bioenergy producer that
19 purchased eligible commodities takes pos-
20 session of such commodities within 30 cal-
21 endar days of the date the Commodity
22 Credit Corporation purchases such com-
23 modities.

24 “(5) RELATION TO OTHER LAWS.—If sugar
25 that is subject to a marketing allotment under part

1 VII of subtitle B of title III of the Agricultural Ad-
 2 justment Act of 1938 (7 U.S.C. 1359aa et seq.) is
 3 the subject of a payment under this section, such
 4 sugar shall be considered marketed and shall count
 5 against a processor's allocation of an allotment
 6 under such part, as applicable.

7 “(6) FUNDING.—The Secretary shall use the
 8 funds, facilities, and authorities of the Commodity
 9 Credit Corporation, including the use of such sums
 10 as are necessary, to carry out this section.”.

11 **TITLE VI—CARBON-NEUTRAL** 12 **GOVERNMENT**

13 **SEC. 6001. SHORT TITLE.**

14 This title may be cited as the “Carbon-Neutral Gov-
 15 ernment Act of 2007”.

16 **SEC. 6002. FINDINGS.**

17 The Congress finds the following:

18 (1) The harms associated with global warming
 19 are serious and well recognized. These include the
 20 global retreat of mountain glaciers, reduction in
 21 snow cover extent, the earlier spring melting of riv-
 22 ers and lakes, the accelerated rate of rise of sea lev-
 23 els during the 20th century relative to the past few
 24 thousand years, and increased intensity of hurri-
 25 canes and typhoons.

1 (2) The risks associated with a global mean
2 surface temperature increase above 2° C (3.6° F)
3 above preindustrial temperature are grave. Accord-
4 ing to the Intergovernmental Panel on Climate
5 Change, such temperature increases would increase
6 the severity of ongoing alterations of terrestrial and
7 marine environments, with potentially catastrophic
8 results. Ongoing and projected effects include more
9 prevalent droughts in dry regions, an increase in the
10 spread of disease, a significant reduction in water
11 storage in winter snowpack in mountainous regions
12 with direct and important economic consequences, a
13 precipitous rise in sea levels by the end of the cen-
14 tury, the potential devastation of coastal commu-
15 nities, severe and irreversible changes to natural eco-
16 systems such as the bleaching and destruction of
17 much of the world's coral, and the potential extinc-
18 tion of 30 percent of all living species.

19 (3) That these climate change effects and risks
20 of future effects are widely shared does not minimize
21 the adverse affects individual persons have suffered,
22 will suffer, and are at risk of suffering because of
23 global warming.

24 (4) That some of the adverse and potentially
25 catastrophic effects of global warming are presently

1 at risk of occurring and not a certainty does not ne-
2 gate the harm persons suffer from actions that in-
3 crease the likelihood, extent, and severity of such fu-
4 ture impacts.

5 (5) To preserve the ability to stabilize atmos-
6 pheric greenhouse gas concentrations at levels likely
7 to protect against a temperature rise above 2° C
8 (3.6° F) and maintain the likelihood of avoiding cat-
9 astrophic global warming will require reductions of
10 greenhouse gas emissions of 50 percent to 85 per-
11 cent globally.

12 (6) Achieving such reductions will require a
13 multitude of actions across the global economy that
14 may each address a relatively minute quantity of
15 emissions, but will be cumulatively significant.

16 (7) With only 5 percent of the world population,
17 the United States emits approximately 20 percent of
18 the world's total greenhouse gas emissions, and must
19 be a leader in addressing global warming.

20 (8) The United States Government is the larg-
21 est energy consumer in the United States and is re-
22 sponsible for roughly 100,000,000 metric tons of
23 CO2-equivalent emissions annually.

24 (9) A reduction in greenhouse gas emissions by
25 Federal agencies would slow the increase of global

1 emissions, thereby slowing the increase of global
2 warming and the exacerbation of the risks associated
3 with global warming. In addition, Federal action
4 would accelerate the pace of development and adop-
5 tion of technologies that will be critical to addressing
6 global warming in the United States and worldwide.

7 (10) A failure by any Federal agency to comply
8 with the provisions of this title requiring reductions
9 in its greenhouse gas emissions would exacerbate the
10 pace, extent, and risks of global warming, causing
11 harms beyond what would otherwise occur. The in-
12 cremental emissions from a Federal agency's failure
13 to comply with this title create a harm, which is the
14 incremental exacerbation of the adverse effects and
15 risks of global warming. Although the emissions in-
16 crements involved could be relatively small, such a
17 failure allowing incrementally greater emissions
18 would injure all United States citizens.

19 (11) Improved management of Government op-
20 erations, including acquisitions and procurement and
21 operation of Government facilities, can maximize the
22 use of existing energy efficiency and renewable en-
23 ergy technologies to reduce global warming pollution,
24 while saving taxpayers' money, reducing our depend-
25 ence on oil, enhancing national security, cleaning the

1 air, and protecting pristine places from drilling and
2 mining.

3 (12) Enhancing the accountability and trans-
4 parency of Government operations through setting
5 milestones for agency activities, planning, measuring
6 results, tracking results over time, and public report-
7 ing can improve Government management and make
8 Government operations more efficient and cost effec-
9 tive.

10 **Subtitle A—Federal Government**
11 **Inventory and Management of**
12 **Greenhouse Gas Emissions**

13 **SEC. 6101. INVENTORY OF FEDERAL GOVERNMENT GREEN-**
14 **HOUSE GAS EMISSIONS.**

15 (a) IN GENERAL.—Each agency shall, in accordance
16 with the guidance issued under subsection (b), annually
17 inventory and report its greenhouse gas emissions for the
18 preceding fiscal year. Each such inventory and report shall
19 indicate as discrete categories—

20 (1) any direct emission of greenhouse gas as a
21 result of an activity of the agency;

22 (2) the quantity of indirect emissions of green-
23 house gases attributable to the generation of elec-
24 tricity used by the agency and commercial air travel
25 by agency personnel; and

1 (3) the quantity of emissions of greenhouse
2 gases associated with the work performed for the
3 agency by Federal contractors, comprising direct
4 emissions and indirect emissions associated with
5 electricity used by, and commercial air travel by,
6 such contractors.

7 (b) GUIDANCE; ASSISTANCE.—Not later than 3
8 months after the date of the enactment of this Act, the
9 Administrator shall issue guidance for agencies for con-
10 ducting inventories under this section and reporting under
11 section 6102. Such guidance shall establish inventory and
12 reporting procedures that are at least as rigorous as the
13 inventory procedures established under the Environmental
14 Protection Agency’s Climate Leaders program and shall
15 define the scope of the inventories of direct emissions de-
16 scribed in subsection (a)(1) to be complete and consistent
17 with the national obligation for reporting inventories
18 under the United Nations Framework Convention on Cli-
19 mate Change. The Administrator shall provide assistance
20 to agencies in preparing their inventories.

21 (c) INITIAL INVENTORY BY AGENCIES.—

22 (1) SUBMISSION.—Not later than 1 year after
23 the date of the enactment of this Act, each agency
24 shall submit to the Administrator and make publicly
25 available on the agency’s website an initial inventory

1 of the agency's greenhouse gas emissions for the
2 preceding fiscal year.

3 (2) CERTIFICATION.—Not later than 6 months
4 after an agency submits an initial inventory under
5 paragraph (1), the Administrator shall review the in-
6 ventory for compliance with the guidance issued
7 under subsection (b) and—

8 (A) certify that the inventory is technically
9 valid; or

10 (B) decline to certify the inventory and
11 provide an explanation of the actions or revi-
12 sions that are necessary for the inventory to be
13 certified under subparagraph (A).

14 (3) REVISION.—If the Administrator declines to
15 certify the inventory of an agency under paragraph
16 (2)(B), the agency shall submit to the Administrator
17 and make publicly available on the agency's website
18 a revised inventory not later than 6 months after the
19 date on which the Administrator provides the agency
20 with the explanation required by such paragraph.

21 (d) NET GREENHOUSE GASES FROM FEDERAL
22 LANDS.—Beginning not later than 2 years after the date
23 of enactment of this Act, the Secretary of the Interior and
24 the Secretary of Agriculture shall include as a discrete cat-
25 egory in any inventory under this section the net biological

1 sequestration or emission of greenhouse gases related to
2 human activities and associated with land managed by the
3 Bureau of Land Management or the Forest Service. In
4 developing such estimates of the net biological sequestra-
5 tion or emission of greenhouse gases, the Secretary of the
6 Interior and the Secretary of Agriculture shall take into
7 consideration the results of any available related assess-
8 ments performed by the Secretary of the Interior. Such
9 net biological sequestration or emissions of greenhouse
10 gases shall not be considered for the purposes of setting
11 or measuring progress toward targets under section 6102.
12 For the purposes of this subsection, the net biological se-
13 questration or emission of greenhouse gases refers to the
14 net sequestration or emissions associated with uptake and
15 release of greenhouse gases from soil, vegetation, and dead
16 organic matter.

17 **SEC. 6102. MANAGEMENT OF FEDERAL GOVERNMENT**
18 **GREENHOUSE GAS EMISSIONS.**

19 (a) EMISSION REDUCTION TARGETS.—Not later than
20 18 months after the date of the enactment of this Act,
21 the Administrator shall promulgate annual reduction tar-
22 gets for the total quantity of greenhouse gas emissions de-
23 scribed in section 6101(a), expressed as carbon dioxide
24 equivalents, of all agencies, taken collectively, for each of
25 fiscal years 2010 through 2050.

1 (b) GOALS.—The targets promulgated under sub-
2 section (a) shall be calculated so as—

3 (1) to prevent the total quantity of greenhouse
4 gas emissions of all agencies in fiscal year 2011 and
5 each subsequent fiscal year from exceeding the total
6 quantity of such emissions in fiscal year 2010; and

7 (2) to reduce such greenhouse gas emissions as
8 rapidly as possible, but at a minimum by a quantity
9 equal to 2 percent of projected fiscal year 2010
10 emissions each fiscal year, so as to achieve zero net
11 annual greenhouse gas emissions from the agencies
12 by fiscal year 2050.

13 (c) PROPORTIONATE SHARE.—Each agency shall
14 limit the quantity of its greenhouse gas emissions de-
15 scribed in section 6101(a) to its proportionate share so
16 as to enable the agencies to achieve the targets promul-
17 gated under subsection (a). The Administrator shall pro-
18 mulgate annual reduction targets to be met by each agen-
19 cy to comply with this subsection, after consultation with
20 the agencies and taking into account changes in agency
21 size, structure, and mission over time.

22 (d) AGENCY PLANS FOR MANAGING EMISSIONS.—

23 (1) SUBMISSION.—Not later than 2 years after
24 the date of the enactment of this Act, each agency
25 shall develop, submit to the Administrator, and

1 make publicly available on the agency’s website a
2 plan for achieving the annual reduction targets ap-
3 plicable to such agency under this section through
4 fiscal year 2020. Not later than 2 years before the
5 10-year period beginning in 2021 and each subse-
6 quent 10-year period, the agency shall develop, sub-
7 mit to the Administrator, and make publicly avail-
8 able an updated plan for achieving such targets for
9 the respective period. Each plan developed under
10 this paragraph shall—

11 (A) identify the specific actions to be taken
12 by the agency; and

13 (B) estimate the quantity of reductions of
14 greenhouse gas emissions to be achieved
15 through each such action.

16 (2) CERTIFICATION.—Not later than 6 months
17 after an agency submits a plan under paragraph (1),
18 the Administrator shall—

19 (A) certify that the plan is technically
20 sound and, if implemented, is expected to limit
21 the quantity of the agency’s greenhouse gas
22 emissions to its proportionate share under sub-
23 section (c); or

24 (B) decline to certify the plan and provide
25 an explanation of the revisions that are nec-

1 essary for the plan to be certified under sub-
2 paragraph (A).

3 (3) REVISION.—If the Administrator declines to
4 certify the plan of an agency under paragraph (2),
5 the agency shall submit to the Administrator and
6 make publicly available on the agency’s website a re-
7 vised plan not later than 6 months after the date on
8 which the Administrator provides the agency with
9 the explanation required by paragraph (2)(B).

10 (e) EMISSIONS MANAGEMENT.—

11 (1) REQUIREMENT.—Each agency shall imple-
12 ment each provision in its plan under subsection (d)
13 to manage its greenhouse gas emissions to meet the
14 annual reduction targets applicable to such agency
15 under this section. If—

16 (A) an agency has met its applicable re-
17 duction target for the most recent year; and

18 (B) the agency demonstrates that it is pro-
19 jected to meet such targets for future years
20 without implementing a provision or provisions
21 included in its plan,

22 the agency may revise its plan, subject to subsection
23 (d)(2), to defer implementation of such plan provi-
24 sions until the date that implementation is needed to
25 meet the agency’s applicable targets.

1 (2) REVISION OF PLAN.—If any agency fails to
2 meet such targets for a fiscal year, as indicated by
3 the inventory and report prepared by the agency for
4 such fiscal year, the agency shall submit to the Ad-
5 ministrator and make publicly available on the agen-
6 cy’s website a revised plan under subsection (d) not
7 later than March 31 of the following fiscal year. The
8 Administrator shall certify or decline to certify the
9 revised plan in accordance with subsection (d)(2) not
10 later than 3 months after receipt of the revised plan.

11 (3) OFFSETS.—

12 (A) PROPOSAL.—If no national mandatory
13 economy-wide cap-and-trade program for green-
14 house gases has been enacted by fiscal year
15 2010, the Administrator shall develop and sub-
16 mit to the Congress by 2011 a proposal to allow
17 agencies to meet the annual reduction targets
18 applicable to such agencies under this section in
19 part through emissions offsets, beginning in fis-
20 cal year 2015.

21 (B) CONTENTS.—The proposal developed
22 under subparagraph (A) shall ensure that emis-
23 sions offsets are—

24 (i) real, surplus, verifiable, permanent,
25 and enforceable; and

1 (ii) additional for both regulatory and
2 financial purposes (such that the generator
3 of the offset is not receiving credit or com-
4 pensation for the offset in another regu-
5 latory or market context).

6 (C) RULEMAKING.—If by 2012 the Con-
7 gress has not enacted a statute for the express
8 purpose of codifying the proposal developed
9 under subparagraph (A) or an alternative to
10 such proposal, the Administrator shall imple-
11 ment the proposal through rulemaking.

12 (4) EXEMPTIONS.—The President may exempt
13 an agency from complying with the emissions target
14 established for that year under subsection (c) if the
15 President determines it to be in the paramount in-
16 terest of the United States to do so. The agency
17 shall, to the greatest extent practicable, continue to
18 implement the provisions in the agency's plan. Any
19 exemption shall be for a period not in excess of one
20 year, but additional exemptions may be granted for
21 periods of not more than one year upon the Presi-
22 dent's making a new determination.

23 (f) STUDIES ON FEDERAL LANDS.—The Forest Serv-
24 ice, the Bureau of Land Management, the National Park

1 Service, and the United States Fish and Wildlife Service
2 shall—

3 (1) within 3 years after the date of the enact-
4 ment of this Act, conduct studies of the opportuni-
5 ties for management strategies, and identify those
6 management strategies with the greatest potential,
7 to—

8 (A) enhance net biological sequestration of
9 greenhouse gases on Federal lands they manage
10 while avoiding harmful effects on other environ-
11 mental values; and

12 (B) reduce negative impacts of global
13 warming on biodiversity, water supplies, forest
14 health, biological sequestration and storage, and
15 related values;

16 (2) within 4 years after the date of the enact-
17 ment of this Act, study the results that could be
18 achieved through applying management strategies
19 identified as having the greatest potential to achieve
20 the benefits described in paragraph (1) by imple-
21 menting field experiments on discrete portions of se-
22 lected land management units in different parts of
23 the Nation to test such strategies; and

24 (3) report to the Congress on the results of the
25 studies.

1 (g) STUDY ON URBAN AND WILDLAND-URBAN FOR-
2 ESTRY PROGRAMS.—Within 2 years of the date of enact-
3 ment of this Act, the Forest Service, in consultation with
4 appropriate State and local agencies, shall conduct a study
5 of the opportunities of urban and wildland-urban interface
6 forestry programs to enhance net biological sequestration
7 of greenhouse gases and achieve other benefits.

8 (h) REPORTING.—

9 (1) REPORTS BY AGENCIES.—Not later than
10 December 31 each fiscal year, each agency shall sub-
11 mit to the Administrator and make publicly available
12 on the agency's website a report on the agency's im-
13 plementation of its plan required by subsection (d)
14 for the preceding fiscal year, including the inventory
15 of greenhouse gas emissions of the agency during
16 such fiscal year.

17 (2) ANNUAL REPORT TO CONGRESS.—The Ad-
18 ministrator shall review each report submitted under
19 paragraph (1) for technical validity and compile
20 such reports in an annual report on the Federal
21 Government's progress toward carbon neutrality.
22 The Administrator shall submit such annual report
23 to the Committee on Oversight and Government Re-
24 form of the House of Representatives and the Com-
25 mittee on Governmental Affairs of the Senate and

1 make such annual report publicly available on the
2 Environmental Protection Agency’s website.

3 (3) ELECTRONIC SUBMISSION.—In complying
4 with any requirement of this subtitle for submission
5 of inventories, plans, or reports, an agency shall use
6 electronic reporting in lieu of paper copy reports.

7 **SEC. 6103. PILOT PROJECT FOR PURCHASE OF OFFSETS**
8 **AND CERTIFICATES.**

9 (a) GAO STUDY.—No later than April 1, 2008, the
10 Comptroller General of the United States shall issue the
11 report requested by the Congress on May 17, 2007, re-
12 garding markets for greenhouse gas emissions offsets.

13 (b) PILOT PROJECT.—Executive agencies and legisla-
14 tive branch offices may purchase qualified greenhouse gas
15 offsets and qualified renewable energy certificates in any
16 open market transaction that complies with all applicable
17 procurement rules and regulations.

18 (c) QUALIFIED GREENHOUSE GAS OFFSETS.—For
19 purposes of this section, the term “qualified greenhouse
20 gas offset” means a real, additional, verifiable, enforce-
21 able, and permanent domestic—

22 (1) reduction of greenhouse gas emissions; or

23 (2) sequestration of greenhouse gases.

24 (d) QUALIFIED RENEWABLE ENERGY CERTIFI-
25 CATES.—For purposes of this section, the term “qualified

1 renewable energy certificate” means a certificate rep-
2 resenting a specific amount of energy generated by a re-
3 newable energy project that is real, additional, and
4 verifiable.

5 (e) GUIDANCE.—No later than September 30, 2008,
6 the Administrator shall issue guidelines, for Executive
7 agencies, establishing criteria for qualified greenhouse gas
8 offsets and qualified renewable energy certificates. Such
9 guidelines shall take into account the findings and rec-
10 ommendations of the report issued under subsection (a)
11 and shall—

12 (1) establish performance standards for green-
13 house gas offset projects that benchmark reliably ex-
14 pected greenhouse gas reductions from identified
15 categories of projects that reduce greenhouse gas
16 emissions or sequester carbon in accordance with
17 subsection (c); and

18 (2) establish criteria for qualified renewable en-
19 ergy certificates to ensure that energy generated is
20 renewable and is in accordance with subsection (d).

21 (f) REPORT.—The Comptroller General of the United
22 States shall evaluate the pilot program established by this
23 section, including identifying environmental and other
24 benefits of the program, as well as its financial costs and
25 any disadvantages associated with the program. No later

1 than April 1, 2011, the Comptroller General shall provide
2 a report to the Committee on Oversight and Government
3 Reform of the House of Representatives and the Com-
4 mittee on Homeland Security and Governmental Affairs
5 of the Senate providing the details of the evaluation and
6 any recommendations for improvement.

7 (g) ADDITIONAL DEFINITIONS.—In this section:

8 (1) Notwithstanding section 6106(3) of this
9 Act, the term “Executive agency” has the meaning
10 given to such term in section 105 of title 5, United
11 States Code.

12 (2) The term “renewable energy” has the
13 meaning given that term in section 203(b) of the
14 Energy Policy Act of 2005 (42 U.S.C. 15852(b)(2)),
15 except that energy generated from municipal solid
16 waste shall not be renewable energy.

17 (h) AUTHORIZATION.—Of the amount of discre-
18 tionary funds available to each Executive agency or legis-
19 lative branch office for each of fiscal years 2009 and 2010,
20 not more than 0.01 percent of such amount may be used
21 for the purpose of carrying out this section. Such funding
22 shall be in addition to any other funds available to the
23 Executive agency or legislative branch office for such pur-
24 pose.

1 (i) SUNSET CLAUSE.—This section ceases to be effective at the end of fiscal year 2010.

3 **SEC. 6104. IMPACT ON AGENCY'S PRIMARY MISSION.**

4 In implementing the requirements of this subtitle, each agency should adopt compliance strategies that are consistent with the agency's primary mission.

7 **SEC. 6105. SAVINGS CLAUSE.**

8 Nothing in this title or any amendment made by this title shall be interpreted to preempt or limit the authority of a State to take any action to address global warming.

11 **SEC. 6106. DEFINITIONS.**

12 In this subtitle:

13 (1) The term “Administrator” means the Administrator of the Environmental Protection Agency.

15 (2) The term “carbon dioxide equivalent” means, for each greenhouse gas, the quantity of the greenhouse gas that makes the same contribution to global warming as 1 metric ton of carbon dioxide, as determined by the Administrator, taking into account the global warming potentials published by the Intergovernmental Panel on Climate Change.

22 (3) The term “agency” has the meaning given to that term in section 551 of the National Energy Conservation Policy Act (42 U.S.C. 8259).

25 (4) The term “greenhouse gas” means—

- 1 (A) carbon dioxide;
2 (B) methane;
3 (C) nitrous oxide;
4 (D) hydrofluorocarbons;
5 (E) perfluorocarbons;
6 (F) sulfur hexafluoride; or
7 (G) any other anthropogenically-emitted
8 gas that the Administrator, after notice and
9 comment, determines contributes to global
10 warming to a non-negligible degree.

11 **SEC. 6107. AUTHORIZATION OF APPROPRIATIONS.**

12 There are authorized to be appropriated such sums
13 as may be necessary to implement this subtitle.

14 **Subtitle B—Federal Government**
15 **Energy Efficiency**

16 **SEC. 6201. FEDERAL VEHICLE FLEETS.**

17 Section 303 of the Energy Policy Act of 1992 (42
18 U.S.C. 13212) is amended—

19 (1) by redesignating subsection (f) as sub-
20 section (g); and

21 (2) by inserting after subsection (e) the fol-
22 lowing new subsection:

23 “(f) VEHICLE EMISSION REQUIREMENTS.—

24 “(1) PROHIBITION.—

1 “(A) IN GENERAL.—No Federal agency
2 shall acquire a light duty motor vehicle or me-
3 dium duty passenger vehicle that is not a low
4 greenhouse gas emitting vehicle.

5 “(B) SPECIAL RULE FOR VEHICLES PRO-
6 VIDED BY FUNDS CONTAINED IN MEMBERS’
7 REPRESENTATIONAL ALLOWANCE.—If any por-
8 tion of a Members’ Representational Allowance
9 is used to provide any individual with a vehicle
10 described in paragraph (1), including providing
11 an individual with a vehicle under a long-term
12 lease, the House of Representatives shall be
13 considered to have acquired the vehicle for pur-
14 poses of paragraph (1).

15 “(C) DEFINITIONS.—In this paragraph—
16 “(i) the term ‘Federal agency’ in-
17 cludes any office of the legislative branch;
18 and
19 “(ii) the term ‘Members’ Representa-
20 tional Allowance’ means the allowance de-
21 scribed in section 101(a) of the House of
22 Representatives Administrative Reform
23 Technical Corrections Act (2 U.S.C.
24 57b(a)).

1 “(2) GUIDANCE.—Each year, the Administrator
2 of the Environmental Protection Agency shall issue
3 guidance identifying the makes and model numbers
4 of vehicles that are low greenhouse gas emitting ve-
5 hicles. In identifying such vehicles, the Adminis-
6 trator shall take into account the most stringent
7 standards for vehicle greenhouse gas emissions ap-
8 plicable to and enforceable against motor vehicle
9 manufacturers for vehicles sold anywhere in the
10 United States. The Administrator shall not identify
11 any vehicle as a low greenhouse gas emitting vehicle
12 if the vehicle emits greenhouse gases at a higher
13 rate than such standards allow for the manufactur-
14 er’s fleet average grams per mile of carbon dioxide-
15 equivalent emissions for that class of vehicle, taking
16 into account any emissions allowances and adjust-
17 ment factors such standards provide.

18 “(3) DEFINITION.—For purposes of this sub-
19 section, the term ‘medium duty passenger vehicle’
20 has the meaning given that term section 523.2 of
21 title 49 of the Code of Federal Regulations.”.

22 **SEC. 6202. AGENCY ANALYSES FOR MOBILITY ACQUISI-**
23 **TIONS.**

24 (a) COST ESTIMATE REQUIREMENT.—Each Federal
25 agency that owns, operates, maintains, or otherwise funds

1 infrastructure, assets, or personnel to provide delivery of
2 fuel to its operations shall apply activity based cost ac-
3 counting principles to estimate the fully burdened cost of
4 fuel.

5 (b) USE OF COST ESTIMATE.—Each agency shall use
6 the fully burdened cost of fuel, as estimated under sub-
7 section (a), in conducting analyses and making decisions
8 regarding its activities that create a demand for energy.
9 Such analyses and decisions shall include—

10 (1) the use of models, simulations, wargames,
11 and other analytical tools to determine the types of
12 energy consuming equipment that an agency needs
13 to conduct its missions;

14 (2) life-cycle cost benefit analyses and other
15 trade-off analyses for determining the cost effective-
16 ness of measures that improve the energy efficiency
17 of an agency's equipment and systems;

18 (3) analyses and decisions conducted or made
19 by others for the agency; and

20 (4) procurement and acquisition source selec-
21 tion criteria, requests for proposals, and best value
22 determinations.

23 (c) REVISION OF ANALYTICAL TOOLS.—If a Federal
24 agency employs models, simulations, wargames, or other
25 analytical tools that require substantial upgrades to enable

1 those tools to be used in compliance with this section, the
2 agency shall complete such necessary upgrades not later
3 than 4 years after the date of enactment of this Act.

4 (d) DEFINITION.—For purposes of this section, the
5 term “fully burdened cost of fuel” means the commodity
6 price for the fuel plus the total cost of all personnel and
7 assets required to move and, where applicable, protect, the
8 fuel from the point at which the fuel is received from the
9 commercial supplier to the point of use.

10 **SEC. 6203. FEDERAL PROCUREMENT OF ENERGY EFFI-**
11 **CIENT PRODUCTS.**

12 (a) AMENDMENTS.—Section 553 of the National En-
13 ergy Conservation Policy Act (42 U.S.C. 8259b) is amend-
14 ed—

15 (1) in subsection (b)(1), by inserting “in a
16 product category covered by the Energy Star pro-
17 gram or the Federal Energy Management Program
18 for designated products” after “energy consuming
19 product”; and

20 (2) in subsection (c)—

21 (A) by inserting “list in their catalogues,
22 represent as available, and” after “Logistics
23 Agency shall”; and

24 (B) by striking “where the agency” and in-
25 serting “where the head of the agency”.

1 (b) CATALOGUE LISTING DEADLINE.—Not later than
2 9 months after the date of enactment of this Act, the Gen-
3 eral Services Administration and the Defense Logistics
4 Agency shall ensure that the requirement in the amend-
5 ment made under subsection (a)(2)(A) has been fully com-
6 plied with.

7 **SEC. 6204. FEDERAL BUILDING ENERGY EFFICIENCY PER-**
8 **FORMANCE STANDARDS.**

9 (a) STANDARDS.—Section 305(a)(3) of the Energy
10 Conservation and Production Act (42 U.S.C. 6834(a)(3))
11 is amended by adding at the end the following new sub-
12 paragraph:

13 “(D) Not later than 1 year after the date of enact-
14 ment of the Carbon-Neutral Government Act of 2007, the
15 Secretary shall establish, by rule, revised Federal building
16 energy efficiency performance standards that require that:

17 “(i) For new Federal buildings and Federal
18 buildings undergoing major renovations, with respect
19 to which the Administrator of General Services is re-
20 quired to transmit a prospectus to Congress under
21 section 3307 of title 40, United States Code, in the
22 case of public buildings (as defined in section 3301
23 of title 40, United States Code), or of at least
24 \$2,500,000 in costs adjusted annually for inflation
25 for other buildings:

1 “(I) The buildings shall be designed so
 2 that the fossil fuel-generated energy consump-
 3 tion of the buildings is reduced, as compared
 4 with such energy consumption by a similar
 5 building in fiscal year 2003 (as measured by
 6 Commercial Buildings Energy Consumption
 7 Survey or Residential Energy Consumption
 8 Survey data from the Energy Information
 9 Agency), by the percentage specified in the fol-
 10 lowing table:

“Fiscal Year	Percentage Reduction
2010	55
2015	65
2020	80
2025	90
2030	100.

11 “(II) Sustainable design principles shall be
 12 applied to the siting, design, and construction
 13 of such buildings. Not later than 60 days after
 14 the date of enactment of the Carbon-Neutral
 15 Government Act of 2007, the Secretary, in con-
 16 sultation with the Administrator of General
 17 Services, and in consultation with the Secretary
 18 of Defense for considerations relating to those
 19 facilities under the custody and control of the
 20 Department of Defense, shall identify a certifi-
 21 cation system and level for green buildings that
 22 the Secretary determines to be the most likely

1 to encourage a comprehensive and environ-
2 mentally-sound approach to certification of
3 green buildings. The identification of the certifi-
4 cation system and level shall be based on the
5 criteria specified in clause (ii) and shall achieve
6 results at least comparable to the United States
7 Green Building Council Leadership in Energy
8 and Environmental Design silver level. Within
9 60 days of the completion of each study re-
10 quired by clause (iii), the Secretary, in con-
11 sultation with the Administrator of General
12 Services, and in consultation with the Secretary
13 of Defense for considerations relating to those
14 facilities under the custody and control of the
15 Department of Defense, shall review and update
16 the certification system and level, taking into
17 account the conclusions of such study.

18 “(ii) In identifying the green building certifi-
19 cation system and level, the Secretary shall take into
20 consideration—

21 “(I) the ability and availability of assessors
22 and auditors to independently verify the criteria
23 and measurement of metrics at the scale nec-
24 essary to implement this subparagraph;

1 “(II) the ability of the applicable certifi-
2 cation organization to collect and reflect public
3 comment;

4 “(III) the ability of the standard to be de-
5 veloped and revised through a consensus-based
6 process;

7 “(IV) an evaluation of the robustness of
8 the criteria for a high-performance green build-
9 ing, which shall give credit for promoting—

10 “(aa) efficient and sustainable use of
11 water, energy, and other natural resources;

12 “(bb) use of renewable energy sources;

13 “(cc) improved indoor environmental
14 quality through enhanced indoor air qual-
15 ity, thermal comfort, acoustics, day light-
16 ing, pollutant source control, and use of
17 low-emission materials and building system
18 controls; and

19 “(dd) such other criteria as the Sec-
20 retary determines to be appropriate; and

21 “(V) national recognition within the build-
22 ing industry.

23 “(iii) At least once every five years, the Admin-
24 istrator of General Services shall conduct a study to
25 evaluate and compare available third-party green

1 building certification systems and levels, taking into
2 account the criteria listed in clause (ii).

3 “(iv) The Secretary may by rule allow Federal
4 agencies to develop internal certification processes,
5 using certified professionals, in lieu of certification
6 by the certification entity identified under clause
7 (i)(II). The Secretary shall include in any such rule
8 guidelines to ensure that the certification process re-
9 sults in buildings meeting the applicable certification
10 system and level identified under clause (i)(II). An
11 agency employing an internal certification process
12 must continue to obtain external certification by the
13 certification entity identified under clause (i)(II) for
14 at least 5 percent of the total number of buildings
15 certified annually by the agency.

16 “(v) With respect to privatized military hous-
17 ing, the Secretary of Defense, after consultation
18 with the Secretary may, through rulemaking, develop
19 alternative criteria to those established by subclauses
20 (I) and (II) of clause (i) that achieve an equivalent
21 result in terms of energy savings, sustainable design,
22 and green building performance.

23 “(vi) In addition to any use of water conserva-
24 tion technologies otherwise required by this section,
25 water conservation technologies shall be applied to

1 the extent that the technologies are life-cycle cost-effective.”.

3 (b) DEFINITIONS.—Section 303(6) of the Energy
4 Conservation and Production Act (42 U.S.C. 6832(6)) is
5 amended by striking “which is not legally subject to State
6 or local building codes or similar requirements.” and inserting “.

7 Such term shall include buildings built for the
8 purpose of being leased by a Federal agency, and
9 privatized military housing.”.

10 **SEC. 6205. MANAGEMENT OF FEDERAL BUILDING EFFICIENCY.**

12 (a) LARGE CAPITAL ENERGY INVESTMENTS.—Section
13 543 of the National Energy Conservation Policy Act
14 (42 U.S.C. 8253) is amended by adding at the end the
15 following new subsection:

16 “(f) LARGE CAPITAL ENERGY INVESTMENTS.—Each
17 Federal agency shall ensure that any large capital energy
18 investment in an existing building that is not a major renovation but involves replacement of installed equipment,
19 such as heating and cooling systems, or involves renovation, rehabilitation, expansion, or remodeling of existing
20 space, employs the most energy efficient designs, systems,
21 equipment, and controls that are life-cycle cost effective.
22 Not later than 6 months after the date of enactment of
23 the Carbon-Neutral Government Act of 2007, each Fed-

1 eral agency shall develop a process for reviewing each such
2 large capital energy investment decision to ensure that the
3 requirement of this subsection is met, and shall report to
4 the Office of Management and Budget on the process es-
5 tablished. Not later than one year after the date of enact-
6 ment of the Carbon-Neutral Government Act of 2007, the
7 Office of Management and Budget shall evaluate and re-
8 port to Congress on each agency’s compliance with this
9 subsection.”.

10 (b) METERING.—Section 543(e)(1) of the National
11 Energy Conservation Policy Act (42 U.S.C. 8253(e)(1))
12 is amended by inserting “By October 1, 2016, each agency
13 shall also provide for equivalent metering of natural gas,
14 steam, chilled water, and water, in accordance with guide-
15 lines established by the Secretary under paragraph (2).”
16 after “buildings of the agency.”.

17 **SEC. 6206. LEASING.**

18 (a) IN GENERAL.—Except as provided in subsection
19 (b), effective 3 years after the date of enactment of this
20 Act, no Federal agency shall enter into a new contract
21 to lease space in a building that has not earned the Energy
22 Star label in the most recent year.

23 (b) EXCEPTION.—If—

1 (1) no space is available in such a building that
2 meets an agency's functional requirements, including
3 locational needs;

4 (2) the agency is proposing to remain in a
5 building that the agency has occupied previously;

6 (3) the agency is proposing to lease a building
7 of historical, architectural, or cultural significance,
8 as defined in section 3306(a)(4) of title 40, United
9 States Code, or space in such a building; or

10 (4) the lease is for no more than 10,000 gross
11 square feet of space,

12 the agency may enter into a contract to lease space in
13 a building that has not earned the Energy Star label in
14 the most recent year if the lease contract includes provi-
15 sions requiring that, prior to occupancy, or in the case
16 of a contract described in paragraph (2) not later than
17 6 months after signing the contract, the space will be ren-
18 ovated for all energy efficiency improvements that would
19 be cost effective over the life of the lease, including im-
20 provements in lighting, windows, and heating, ventilation,
21 and air conditioning systems.

22 **SEC. 6207. PROCUREMENT AND ACQUISITION OF ALTER-**
23 **NATIVE FUELS.**

24 No Federal agency shall enter into a contract for pro-
25 curement of an alternative or synthetic fuel, including a

1 fuel produced from non-conventional petroleum sources,
 2 for any mobility-related use, other than for research or
 3 testing, unless the contract specifies that the lifecycle
 4 greenhouse gas emissions associated with the production
 5 and combustion of the fuel supplied under the contract
 6 must, on an ongoing basis, be less than or equal to such
 7 emissions from the equivalent conventional fuel produced
 8 from conventional petroleum sources.

9 **SEC. 6208. CONTRACTS FOR RENEWABLE ENERGY FOR EX-**
 10 **ECUTIVE AGENCIES.**

11 Section 501(b)(1) of title 40, United States Code, is
 12 amended—

13 (1) in subparagraph (B), by striking “A con-
 14 tract” and inserting “Except as provided in subpara-
 15 graph (C), a contract”; and

16 (2) by adding at the end the following new sub-
 17 paragraph:

18 “(C) RENEWABLE ENERGY CONTRACTS.—

19 A contract for renewable energy may be made
 20 for a period of not more than 30 years. For the
 21 purposes of this subparagraph, the term ‘renew-
 22 able energy’ has the meaning given that term in
 23 section 203(b) of the Energy Policy Act of
 24 2005 (42 U.S.C. 15852(b)(2)), except that en-

1 ergy generated from municipal solid waste shall
2 not be considered renewable energy.”.

3 **SEC. 6209. GOVERNMENT EFFICIENCY STATUS REPORTS.**

4 (a) IN GENERAL.—Each Federal agency subject to
5 any of the requirements of this title and the amendments
6 made by this title shall compile and submit to the Director
7 of the Office of Management and Budget an annual Gov-
8 ernment efficiency status report on—

9 (1) compliance by the agency with each of the
10 requirements of this title and the amendments made
11 by this title;

12 (2) the status of the implementation by the
13 agency of initiatives to improve energy efficiency, re-
14 duce energy costs, and reduce emissions of green-
15 house gases; and

16 (3) savings to American taxpayers resulting
17 from mandated improvements under this title and
18 the amendments made by this title

19 (b) SUBMISSION.—Such report shall be submitted—

20 (1) to the Director at such time as the Director
21 requires;

22 (2) in electronic, not paper, format; and

23 (3) consistent with related reporting require-
24 ments.

1 **SEC. 6210. OMB GOVERNMENT EFFICIENCY REPORTS AND**
2 **SCORECARDS.**

3 (a) REPORTS.—Not later than April 1 of each year,
4 the Director of the Office of Management and Budget
5 shall submit an Annual Government Efficiency report to
6 the Committee on Oversight and Government Reform of
7 the House of Representatives and the Committee on Gov-
8 ernmental Affairs of the Senate, which shall contain—

9 (1) a summary of the information reported by
10 agencies under section 6209;

11 (2) an evaluation of the Government's overall
12 progress toward achieving the goals of this title and
13 the amendments made by this title; and

14 (3) recommendations for additional actions nec-
15 essary to meet the goals of this title and the amend-
16 ments made by this title.

17 (b) SCORECARDS.—The Office of Management and
18 Budget shall include in any annual energy scorecard it is
19 otherwise required to submit a description of each agen-
20 cy's compliance with the requirements of this title and the
21 amendments made by this title.

22 **SEC. 6211. AUTHORIZATION OF APPROPRIATIONS.**

23 There are authorized to be appropriated such sums
24 as may be necessary to implement this subtitle.

1 **SEC. 6212. JUDICIAL REVIEW.**

2 (a) FINAL AGENCY ACTION.—Any nondiscretionary
3 act or duty under this title or any amendment made by
4 this title is a final agency action for the purposes of judi-
5 cial review under chapter 7 of title 5, United States Code.

6 (b) VENUE FOR CERTAIN ACTIONS.—The United
7 States Court of Appeals for the District of Columbia Cir-
8 cuit shall have exclusive jurisdiction over any petition for
9 review of action of the Administrator in promulgating any
10 rule under subtitle A of this title.

11 (c) LIMITATIONS.—No action under chapter 7 of title
12 5, United States Code, may be commenced prior to 60
13 days after the date on which the plaintiff has given notice
14 to the Federal agency concerned of the alleged violation
15 of this title or any amendment made by this title.

16 (d) COMMON CLAIMS.—When civil actions arising
17 under this title or any amendment made by this title are
18 pending in the same court and involve one or more com-
19 mon questions of fact or common claims regarding the
20 same alleged Federal agency failure or failures to act, the
21 court may consolidate such claims into a single action for
22 judicial review. When civil actions arising under this title
23 or any amendment made by this title are pending in dif-
24 ferent districts and involve one or more common questions
25 of fact or common claims regarding the same alleged Fed-
26 eral agency failure or failures to act, such actions may

1 be consolidated pursuant to section 1407 of title 28,
2 United States Code.

3 (e) AGGRIEVED PERSONS.—A person shall be consid-
4 ered aggrieved within the meaning of this title or any
5 amendment made by this title for purposes of obtaining
6 judicial review under chapter 7 of title 5, United States
7 Code, if the person alleges—

8 (1) harm attributable to a Federal agency’s
9 failure to reduce its greenhouse gas emissions in ac-
10 cordance with the requirements under this title or
11 any amendment made by this title, or take other ac-
12 tions required under this title or any amendment
13 made by this title; or

14 (2) a Federal agency’s failure to collect and
15 provide information to the public as required by this
16 title or any amendment made by this title.

17 For purposes of this section, the term “harm” includes
18 any effect of global warming, currently occurring or at risk
19 of occurring, and the incremental exacerbation of any such
20 effect or risk that is associated with relatively small incre-
21 ments of greenhouse gas emissions, even if the effect or
22 risk is widely shared. An effect or risk associated with
23 global warming is “attributable” to a Federal agency’s
24 failure to act as described in paragraph (1) if the failure
25 to act results in larger emissions of greenhouse gases than

1 would have been emitted had the Federal agency followed
2 the requirements of this title or any amendment made by
3 this title, as any such incremental additional emissions will
4 exacerbate the pace, extent, and risks of global warming.

5 (f) REMEDY.—

6 (1) IN GENERAL.—In addition to the remedies
7 available under chapter 7 of title 5, United States
8 Code, a court may provide the remedies specified in
9 this subsection.

10 (2) PAYMENT.—In any civil action alleging a
11 violation of this title, if the court finds that an agen-
12 cy has significantly violated this title in its failure to
13 perform any nondiscretionary act or duty under this
14 title or any amendment made by this title, the court
15 may award a payment, payable by the United States
16 Treasury, to be used for a beneficial mitigation
17 project recommended by the plaintiff or to com-
18 pensate the plaintiff for any impact from global
19 warming suffered by the plaintiff. The total payment
20 for all claims by all plaintiffs in any such action
21 shall not exceed the amount provided in section
22 1332(b) of title 28, United States Code. A court
23 may deny a second payment under this section if the
24 court determines that the plaintiff has filed multiple
25 separate actions that could reasonably have been

1 combined into a single action. No payment may be
2 awarded under this paragraph for violations of an
3 agency's obligation to collect or report information
4 to the public. No court may award any payment
5 under this paragraph in any given year if the cumu-
6 lative payments awarded by courts under this para-
7 graph in such year are equal to or greater than
8 \$1,500,000.

9 (3) COSTS.—A court may award costs of litiga-
10 tion to any substantially prevailing plaintiff or to
11 any other plaintiff whenever the court determines
12 such an award is appropriate. Such an award is ap-
13 propriate when such litigation contributes to the
14 Federal agency's compliance with this title or any
15 amendment made by this title. Costs of litigation in-
16 clude reasonable attorney fees and expert fees.

17 (4) EXCLUSIVE REMEDY.—Notwithstanding any
18 other provision of Federal law—

19 (A) no plaintiff who is awarded a payment
20 under this subsection for a failure to perform a
21 mandatory duty under this title or any amend-
22 ment made by this title may be awarded a pay-
23 ment for such failure under any other Federal
24 law; and

1 (B) no plaintiff may be awarded a pay-
2 ment under this subsection for a failure to per-
3 form a mandatory duty under this title or any
4 amendment made by this title if the plaintiff
5 has been awarded a payment for such failure
6 under any other Federal law.

7 (g) NO STATE COURT ACTION.—No person may
8 bring any action in State court alleging a violation of this
9 title or any amendment made by this title.

10 (h) INAPPLICABILITY TO PROCUREMENT PRO-
11 TESTS.—No action may be commenced under this section
12 objecting to a solicitation by a Federal agency for bids
13 or proposals for a proposed contract or to a proposed
14 award or the award of a contract or any alleged violation
15 of statute or regulation in connection with a procurement
16 or a proposed procurement if such action may be brought
17 by an interested party under section 1491(b)(1) of title
18 28, United States Code, or subchapter V of title 31,
19 United States Code.

20 (i) DEFINITION.—In this section, the term “person”
21 means a United States person. In the case of an indi-
22 vidual, such term means a citizen or national of the United
23 States.

Subtitle C—Telework Enhancement

SEC. 6301. SHORT TITLE.

This subtitle may be cited as the “Telework Enhancement Act of 2007”.

SEC. 6302. FEDERAL GOVERNMENT TELEWORK REQUIRE- MENT.

(a) IN GENERAL.—

(1) ELIGIBILITY.—Within 1 year after the date of enactment of this Act, the head of each Executive agency shall establish a policy under which each employee of the agency, except as provided in subsection (b), shall be eligible to participate in telework.

(2) PARTICIPATION POLICY.—The policy shall ensure that eligible employees participate in telework to the maximum extent possible without diminishing employee performance or agency operations.

(b) INELIGIBLE EMPLOYEES.—Subsection (a)(1) does not apply to executive agency employees whose duties require the daily handling of national security or intelligence materials or daily on-site physical presence for activity such as necessary contact with special equipment or other activity that cannot be handled remotely or at an alternate worksite.

1 **SEC. 6303. TRAINING AND MONITORING.**

2 The head of each executive agency shall ensure
3 that—

4 (1) telework training is incorporated in the
5 agency's new employee orientation procedures;

6 (2) telework training is provided to managers
7 and all new teleworkers; and

8 (3) periodic employee reviews are conducted for
9 all employees to ascertain whether telework is appro-
10 priate for the employee's job description and the ex-
11 tent to which it is being utilized by the employee.

12 **SEC. 6304. TELEWORK MANAGING EMPLOYEE.**

13 (a) IN GENERAL.—The head of each executive agency
14 shall appoint a full time senior level employee of the agen-
15 cy as the Telework Managing Officer. The Telework Man-
16 aging Office shall be established within the office of the
17 chief administrative officer or a comparable office with
18 similar functions.

19 (b) DUTIES.—The Telework Managing Officer
20 shall—

21 (1) serve as liaison between employees engaged
22 in teleworking and their employing entity;

23 (2) ensure that the organization's telework pol-
24 icy is communicated effectively to employees;

25 (3) encourage all eligible employees to engage
26 in telework to the maximum practicable extent con-

1 sistent with meeting performance requirements and
2 maintaining operations;

3 (4) assist the head of the agency in the develop-
4 ment and maintenance of agencywide telework poli-
5 cies;

6 (5) provide assistance and advice in labor-man-
7 agement interactions regarding telework;

8 (6) educate administrative units on telework
9 policies, programs, and training courses;

10 (7) provide written notification to each em-
11 ployee of specific telework programs and the employ-
12 ee's eligibility for those programs;

13 (8) focus on expanding and monitoring agency
14 telework programs;

15 (9) recommend and oversee telework-specific
16 pilot programs for employees and managers, includ-
17 ing tracking performance and monitoring activities;

18 (10) develop and administer a telework per-
19 formance reporting system;

20 (11) promote and monitor agency and other re-
21 sources necessary for effective teleworking;

22 (12) develop telework promotion and incentive
23 programs; and

24 (13) assist the head of the agency in design-
25 nating employees to telework to continue agency op-

1 erations in the event of a major disaster (as defined
2 in section 102 of the Robert T. Stafford Disaster
3 Relief and Emergency Assistance Act (42 U.S.C.
4 5122)).

5 (c) REPORT.—The Telework Managing Officer shall
6 submit a report to the head of the employing agency and
7 the Comptroller General at least once every 12 months
8 that includes a statement of the applicable telework policy,
9 a description of measures in place to carry out the policy,
10 and an analysis of the participation by employees of the
11 entity in teleworking during the preceding 12-month pe-
12 riod.

13 **SEC. 6305. ANNUAL TELEWORK AGENCY RATING.**

14 (a) IN GENERAL.—The Comptroller General shall es-
15 tablish a system for evaluating—

16 (1) the telework policy of each executive agency;
17 and

18 (2) on an annual basis the participation in tele-
19 working by their employees.

20 (b) REPORT.—The Comptroller General shall publish
21 a report each year rating—

22 (1) the telework policy of each entity to which
23 this subtitle applies;

1 (2) the degree of participation by employees of
2 each such entity in teleworking during the 12-month
3 period covered by the report;

4 (3) for each executive agency—

5 (A) the number of employees in the agen-
6 cy;

7 (B) the number of those employees who
8 are eligible to telework;

9 (C) the number of employees who engage
10 on a regular basis in teleworking; and

11 (D) the number of employees who engage
12 on an occasional or sporadic basis (at least one
13 day per month) in teleworking; and

14 (4) for each executive agency, an assessment of
15 agency compliance with this subtitle.

16 **SEC. 6306 DEFINITIONS.**

17 In this subtitle:

18 (1) **EMPLOYEE.**—The term “employee” has the
19 meaning given that term by section 8101(1) of title
20 5, United States Code.

21 (2) **EXECUTIVE AGENCY.**—The term “Executive
22 agency” has the meaning given that term by section
23 105 of title 5, United States Code.

24 (3) **TELEWORK.**—The term “telework” means a
25 work arrangement in which an employee regularly

1 performs officially assigned duties at home or other
 2 worksites geographically convenient to the residence
 3 of the employee that—

4 (A) reduces or eliminates the employee’s
 5 commute between his or her residence and his
 6 or her place of employment; and

7 (B) occurs at least 2 business days per
 8 week in at least 48 weeks in a year.

9 **TITLE VII—NATURAL RE-**
 10 **SOURCES COMMITTEE PROVI-**
 11 **SIONS**

12 **SEC. 7001. SHORT TITLE.**

13 This title may be cited as the “Energy Policy Reform
 14 and Revitalization Act of 2007”.

15 **Subtitle A—Energy Policy Act of**
 16 **2005 Reforms**

17 **SEC. 7101. FISCALLY RESPONSIBLE ENERGY AMENDMENTS.**

18 (a) REQUIREMENT TO ESTABLISH COST RECOVERY
 19 FEE.—Section 365(i) of the Energy Policy Act of 2005
 20 (Public Law 109–58; 42 U.S.C. 15924(i)) is amended to
 21 read as follows:

22 “(i) FEE FOR APPLICATIONS FOR PERMITS TO
 23 DRILL.—

24 “(1) REQUIREMENT TO ESTABLISH COST RE-
 25 COVERY FEE.—The Secretary of the Interior shall

1 promulgate regulations to establish a cost recovery
2 fee for applications for a permit to drill for oil and
3 gas on Federal lands administered by the Secretary.

4 “(2) TEMPORARY FEE.—Until such time as a
5 fee is established by such regulations, the Secretary
6 shall charge a cost recovery fee of \$1,700 for each
7 such application received on or after October 1,
8 2007.

9 “(3) DEPOSIT AND USE.—Amounts received by
10 the United States in the form of the fee established
11 under this subsection—

12 “(A) shall be available to the Secretary of
13 the Interior to administer permit processing;
14 and

15 “(B) shall be treated as offsetting re-
16 ceipts.”.

17 (b) REPEAL OF BLM PERMIT PROCESSING IM-
18 PROVEMENT FUND.—

19 (1) REPEAL.—Section 35 of the Mineral Leas-
20 ing Act (30 U.S.C. 191) is amended by striking sub-
21 section (c).

22 (2) TREATMENT OF BALANCE.—Any balances
23 remaining in the BLM Permit Processing Improve-
24 ment Fund on the effective date of this subsection

1 shall be transferred to the general fund of the
2 Treasury of the United States.

3 (3) EFFECTIVE DATE.—This subsection shall
4 take effect on October 1, 2007.

5 **SEC. 7102. EXTENSION OF DEADLINE FOR CONSIDERATION**
6 **OF APPLICATIONS FOR PERMITS.**

7 Subsection (p)(2) of section 17 of the Mineral Leas-
8 ing Act (30 U.S.C. 226) is amended by striking “30” and
9 inserting “45”.

10 **SEC. 7103. OIL SHALE AND TAR SANDS LEASING.**

11 Section 369 of the Energy Policy Act of 2005 (42
12 U.S.C. 15927) is amended—

13 (1) in subsection (c), by striking “not later than
14 180 days after the date of enactment of this Act,”;

15 (2) in subsection (c), by striking “shall make”
16 and inserting “may make”;

17 (3) in subsection (d)(1), by striking “Not later
18 than 18 months after the date of enactment of this
19 Act, in” and inserting “In”;

20 (4) in subsection (d)(2)—

21 (A) in the heading by striking “FINAL”
22 and inserting “PROPOSED”; and

23 (B) in the text by striking “final” and in-
24 serting “proposed”;

1 (5) in subsection (d)(2), by striking “6” and in-
2 serting “12”;

3 (6) in subsection (d)(2) by inserting after the
4 period “The proposed regulations developed under
5 this paragraph are to be open for public comment
6 for no less than 120 days.”;

7 (7) by redesignating subsections (e) through (s)
8 as subsections (g) through (u), and by inserting
9 after subsection (d) the following:

10 “(e) OIL SHALE AND TAR SANDS LEASING AND DE-
11 VELOPMENT STRATEGY.—

12 “(1) GENERAL.—Not later than 6 months after
13 the completion of the programmatic environmental
14 impact statement under subsection (d), the Sec-
15 retary shall prepare an oil shale and tar sands leas-
16 ing and development strategy, in cooperation with
17 the Secretary of Energy and the Administrator of
18 the Environmental Protection Agency.

19 “(2) PURPOSE.—The purpose of the strategy
20 developed under this subsection is to provide a
21 framework for regulations that will allow for the sus-
22 tainable and publicly acceptable large-scale develop-
23 ment of oil shale within the Green River Formation
24 and to provide a basis for decisions regarding Fed-

1 eral support for research and other activities to
2 achieve that result.

3 “(3) CONTENTS.—The strategy shall include
4 plans and programs for obtaining information re-
5 quired for determining the optimal methods, loca-
6 tions, amount, and timeframe for potential develop-
7 ment on Federal lands within the Green River For-
8 mation. The strategy shall also include plans for
9 conducting critical environmental and ecological re-
10 search, high-payoff process improvement research,
11 an assessment of carbon management options, and a
12 large-scale demonstration of carbon dioxide seques-
13 tration in the general vicinity of the Piceance Basin.

14 “(f) ALTERNATIVE APPROACHES.—In developing the
15 strategy under subsection (e), the Secretary shall, in co-
16 operation with the Secretary of Energy and the Adminis-
17 trator of the Environmental Protection Agency, consult
18 with industry and other interested persons regarding al-
19 ternative approaches to providing access to Federal lands
20 for early first-of-a-kind commercial facilities for extracting
21 and processing oil shale and tar sands.”;

22 (8) in subsection (g), as so redesignated, by
23 striking “of the final regulation required by sub-
24 section (d)” and inserting “of final regulations
25 issued under this section”;

1 (9) in subsection (g), as so redesignated, by
 2 adding at the end the following: “Compliance with
 3 the National Environmental Policy Act of 1969 is
 4 required on a site-by-site basis for all lands proposed
 5 to be leased under the commercial leasing program
 6 established in this subsection.”; and

7 (10) in subsection (i)(1)(B), as so redesignated,
 8 by striking “subsection (e)” and inserting “sub-
 9 section (g)”.

10 **SEC. 7104. LIMITATION OF REBUTTABLE PRESUMPTION RE-**
 11 **GARDING APPLICATION OF CATEGORICAL**
 12 **EXCLUSION UNDER NEPA FOR OIL AND GAS**
 13 **EXPLORATION AND DEVELOPMENT ACTIVI-**
 14 **TIES.**

15 Section 390 of the Energy Policy Act of 2005 (Public
 16 Law 109–58; 42 U.S.C. 15942) is amended by adding at
 17 the end the following:

18 “(c) ADHERENCE TO CEQ REGULATIONS.—In ad-
 19 ministering this section, the Secretary of the Interior in
 20 managing the public lands, and the Secretary of Agri-
 21 culture in managing National Forest System lands, shall
 22 adhere to the regulations issued by the Council on Envi-
 23 ronmental Quality relating to categorical exclusions (40
 24 CFR 1507.3 and 1508.4), as in effect on the date of en-
 25 actment of this Act.”.

1 **SEC. 7105. BEST MANAGEMENT PRACTICES.**

2 Not later than 180 days after the date of enactment
3 of this Act, the Secretary of the Interior, through the Bu-
4 reau of Land Management, shall amend the best manage-
5 ment practices guidelines for oil and gas development on
6 Federal lands, to—

7 (1) require public review and comment prior to
8 waiving any stipulation of an oil and gas lease for
9 such lands, except in the case of an emergency; and

10 (2) create an incentive for oil and gas operators
11 to adopt best management practices that minimize
12 adverse impacts to wildlife habitat, by providing ex-
13 pedited permit review for any operator that commits
14 to adhering to those practices without seeking waiver
15 of such stipulations.

16 **SEC. 7106. FEDERAL CONSISTENCY APPEALS.**

17 (a) SHORT TITLE.—This section may be cited as the
18 “Federal Consistency Appeals Decision Refinement Act”.

19 (b) CLARIFICATION OF APPEAL DECISION TIME PE-
20 RIODS AND INFORMATION REQUIREMENTS.—Section
21 319(b) of the Coastal Zone Management Act of 1972 (16
22 U.S.C. 1465(b)) is amended—

23 (1) in paragraph (1), by striking “160-day”
24 and inserting “200-day”;

25 (2) in paragraph (3)(A)—

1 (A) by striking “160-day” and inserting
2 “200-day”; and

3 (B) by amending clause (ii) to read as fol-
4 lows:

5 “(ii) as the Secretary determines nec-
6 essary to receive, on an expedited basis,
7 any supplemental or clarifying information
8 relevant to the consolidated record com-
9 piled by the lead Federal permitting agen-
10 cy to complete a consistency review under
11 this title.”; and

12 (3) in paragraph (3)(B) by striking “160-day”
13 and inserting “200-day”.

14 **Subtitle B—Federal Energy Public**
15 **Accountability, Integrity, and**
16 **Public Interest**

17 **CHAPTER 1—ACCOUNTABILITY AND IN-**
18 **TEGRITY IN THE FEDERAL ENERGY**
19 **PROGRAM**

20 **SEC. 7201. AUDITS.**

21 (a) REQUIREMENT TO INCREASE THE NUMBER OF
22 AUDITS.—The Secretary of the Interior shall ensure that
23 by fiscal year 2009 the Minerals Management Service
24 shall perform no less than 550 audits of oil and gas leases
25 each fiscal year.

1 (b) STANDARDS.—Not later than 120 days after the
2 date of enactment of this Act, the Secretary of the Interior
3 shall issue regulations that require that all employees that
4 conduct audits or compliance reviews must meet profes-
5 sional auditor qualifications that are consistent with the
6 latest revision of the Government Auditing Standards pub-
7 lished by the Government Accountability Office. Such reg-
8 ulations shall also ensure that all audits conducted by the
9 Department of the Interior are performed in accordance
10 with such standards.

11 **SEC. 7202. FINES AND PENALTIES.**

12 (a) SANCTIONS FOR VIOLATIONS RELATING TO FED-
13 ERAL OIL AND GAS ROYALTIES.—Section 109 of the Fed-
14 eral Oil and Gas Royalty Management Act of 1982 (30
15 U.S.C. 1719) is amended to read as follows:

16 “CIVIL PENALTIES

17 “SEC. 109. (a) ROYALTY VIOLATIONS.—(1) No per-
18 son shall—

19 “(A) after due notice of violation or after such
20 violation has been reported under paragraph (3)(A),
21 fail or refuse to comply with any requirement of any
22 mineral leasing law or any regulation, order, lease,
23 or permit under such a law;

24 “(B) fail or refuse to make any royalty pay-
25 ment in the amount or value required by any min-

1 eral leasing law or any regulation, order, or lease
2 under such a law, with the intent to defraud;

3 “(C) fail or refuse to make any royalty payment
4 by the date required by any mineral leasing law or
5 any regulation, order, or lease under such a law,
6 with the intent to defraud; or

7 “(D) prepare, maintain, or submit any false, in-
8 accurate, or misleading report, notice, affidavit,
9 record, data, or other written information or filing
10 related to royalty payments that is required under
11 any mineral leasing law or regulation issued under
12 any mineral leasing law, with the intent to defraud.

13 “(2) A person who violates paragraph (1) shall be lia-
14 ble—

15 “(A) in the case of a violation of subparagraph
16 (B) or (C) of paragraph (1) for an amount equal to
17 3 times the royalty the person fails or refuses to
18 pay, plus interest on that trebled amount measured
19 from the first date the royalty payment was due;
20 and

21 “(B) in the case of any violation, for a civil
22 penalty of—

23 “(i) except as provided in clause (ii), up to
24 \$25,000 per violation for each day the violation
25 continues; or

1 “(ii) if the person failed or refused to
2 make a payment of royalty owed in an amount
3 less than \$25,000, an amount equal to 150 per-
4 cent of the royalty owed that was not paid;

5 “(3) Paragraph (2) shall not apply to a violation of
6 paragraph (1) if the person who commits the violation,
7 within 30 days of knowing of the violation—

8 “(A) reports the violation to the Secretary or a
9 representative designated by the Secretary; and

10 “(B) corrects the violation.

11 “(b) LEASE ADMINISTRATION VIOLATIONS.—Any
12 person who—

13 “(1) fails to notify the Secretary of—

14 “(A) any designation by the person under
15 section 102(a); or

16 “(B) any other assignment of obligations
17 or responsibilities of the person under a lease;

18 “(2) fails or refuses to permit—

19 “(A) lawful entry;

20 “(B) inspection, including any inspection
21 authorized by section 108; or

22 “(C) audit, including any failure or refusal
23 to promptly tender requested documents;

1 “(3) fails or refuses to comply with subsection
2 102(b)(3) (relating to notification regarding begin-
3 ning or resumption of production); or

4 “(4) fails to correctly report and timely provide
5 operations or financial records necessary for the Sec-
6 retary or any authorized designee of the Secretary to
7 accomplish lease management responsibilities,
8 shall be liable for a penalty of up to \$10,000 per violation
9 for each day such violation continues.

10 “(c) THEFT.—Any person who—

11 “(1) knowingly or willfully takes or removes,
12 transports, uses or diverts any oil or gas from any
13 lease site without having valid legal authority to do
14 so; or

15 “(2) purchases, accepts, sells, transports, or
16 conveys to another, any oil or gas knowing or having
17 reason to know that such oil or gas was stolen or
18 unlawfully removed or diverted,

19 shall be liable for a penalty of up to \$25,000 per violation
20 for each day such violation continues without correction.

21 “(d) ADMINISTRATIVE APPEAL.—(1) Any determina-
22 tion by the Secretary or a designee of the Secretary of
23 the amount of any royalties or civil penalties owed under
24 subsection (a), (b), or (c) shall be final, unless within 120
25 days after notification by the Secretary or designee the

1 person liable for such amount files an administrative ap-
2 peal in accordance with regulations issued by the Sec-
3 retary.

4 “(2) If a person files an administrative appeal pursu-
5 ant to paragraph (1), the Secretary or designee shall make
6 a final determination in accordance with the regulations
7 referred to in paragraph (1).

8 “(e) DEDUCTION.—The amount of any penalty under
9 this section, as finally determined may be deducted from
10 any sums owing by the United States to the person
11 charged.

12 “(f) COMPROMISE AND REDUCTION.—On a case-by-
13 case basis the Secretary may compromise or reduce civil
14 penalties under this section.

15 “(g) NOTICE.—Notice under this subsection (a) shall
16 be by personal service by an authorized representative of
17 the Secretary or by registered mail. Any person may, in
18 the manner prescribed by the Secretary, designate a rep-
19 resentative to receive any notice under this subsection.

20 “(h) RECORD OF DETERMINATION.—In determining
21 the amount of such penalty, or whether it should be remit-
22 ted or reduced, and in what amount, the Secretary shall
23 state on the record the reasons for his determinations.

24 “(i) JUDICIAL REVIEW.—Any person who has re-
25 quested a hearing in accordance with subsection (e) within

1 the time the Secretary has prescribed for such a hearing
2 and who is aggrieved by a final order of the Secretary
3 under this section may seek review of such order in the
4 United States district court for the judicial district in
5 which the violation allegedly took place. Review by the dis-
6 trict court shall be de novo. Such an action shall be barred
7 unless filed within 90 days after the Secretary's final
8 order.

9 “(j) FAILURE TO PAY.—If any person fails to pay
10 an assessment of a civil penalty under this Act—

11 “(1) after the order making the assessment has
12 become a final order and if such person does not file
13 a petition for judicial review of the order in accord-
14 ance with subsection (j); or

15 “(2) after a court in an action brought under
16 subsection (j) has entered a final judgment in favor
17 of the Secretary,

18 the court shall have jurisdiction to award the amount as-
19 sessed plus interest from the date of the expiration of the
20 90-day period referred to in subsection (j). Judgment by
21 the court shall include an order to pay.

22 “(k) RELATIONSHIP TO MINERAL LEASING ACT.—
23 No person shall be liable for a civil penalty under sub-
24 section (a) or (b) for failure to pay any rental for any

1 lease automatically terminated pursuant to section 31 of
2 the Mineral Leasing Act.

3 “(l) TOLLING OF STATUTES OF LIMITATION.—(1)
4 Any determination by the Secretary or a designee of the
5 Secretary that a person has violated subsection (a), (b)(2),
6 or (b)(4) shall toll any applicable statute of limitations for
7 all oil and gas leases held or operated by such person, until
8 the later of—

9 “(A) the date on which the person corrects the
10 violation and certifies that all violations of a like na-
11 ture have been corrected for all of the oil and gas
12 leases held or operated by such person; or

13 “(B) the date a final, nonappealable order has
14 been issued by the Secretary or a court of competent
15 jurisdiction.

16 “(2) A person determined by the Secretary or a des-
17 ignee of the Secretary to have violated subsection (a),
18 (b)(2), or (b)(4) shall maintain all records with respect
19 to the person’s oil and gas leases until the later of—

20 “(A) the date the Secretary releases the person
21 from the obligation to maintain such records; and

22 “(B) the expiration of the period during which
23 the records must be maintained under section
24 103(b).

1 “(m) STATE SHARING OF PENALTIES.—Amounts re-
2 ceived by the United States in an action brought under
3 section 3730 of title 31, United States Code, that arises
4 from any underpayment of royalties owed to the United
5 States under any lease shall be treated as royalties paid
6 to the United States under that lease for purposes of the
7 mineral leasing laws and the Land and Water Conserva-
8 tion Fund Act of 1965 (16 U.S.C. 460l–4 et seq.).”.

9 (b) SHARED CIVIL PENALTIES.—Section 206 of the
10 Federal Oil and Gas Royalty Management Act of 1982
11 (30 U.S.C. 1736) is amended—

12 (1) by inserting “trebled royalties or” after “50
13 per centum of any”; and

14 (2) by striking the second sentence.

15 **CHAPTER 2—AMENDMENTS TO FEDERAL**
16 **OIL AND GAS ROYALTY MANAGEMENT**
17 **ACT OF 1982**

18 **SEC. 7211. AMENDMENTS TO DEFINITIONS.**

19 Section 3 of the Federal Oil and Gas Royalty Man-
20 agement Act of 1982 (30 U.S.C. 1702) is amended—

21 (1) in paragraph (20)(A), by striking “: *Pro-*
22 *vided, That*” and all that follows through “subject of
23 the judicial proceeding”;

1 (2) in paragraph (20)(B), by striking “(with
2 written notice to the lessee who designated the des-
3 ignee)”;

4 (3) in paragraph (23)(A), by striking “(with
5 written notice to the lessee who designated the des-
6 ignee)” ;

7 (4) by amending paragraph (24) to read as fol-
8 lows:

9 “(24) ‘designee’ means any person who pays,
10 offsets, or credits monies, makes adjustments, re-
11 quests and receives refunds, or submits reports with
12 respect to payments a lessee must make pursuant to
13 section 102(a);”;

14 (5) in paragraph (25)(B), by striking “(subject
15 to the provisions of section 102(a) of this Act)”;

16 (6) in paragraph (26), by striking “(with notice
17 to the lessee who designated the designee)”.

18 **SEC. 7212. INTEREST.**

19 (a) ESTIMATED PAYMENTS; INTEREST ON AMOUNT
20 OF UNDERPAYMENT.—Section 111(j) of the Federal Oil
21 and Gas Royalty Management Act of 1982 (30 U.S.C.
22 1721(j)) is amended by striking “If the estimated pay-
23 ment exceeds the actual royalties due, interest is owed on
24 the overpayment.”.

1 (b) OVERPAYMENTS.—Section 111 of the Federal Oil
2 and Gas Royalty Management Act of 1982 (30 U.S.C.
3 1721) is amended by striking subsections (h) and (i).

4 (c) EFFECTIVE DATE.—The amendments made by
5 this section shall be effective one year after the date of
6 enactment of this Act.

7 **SEC. 7213. OBLIGATION PERIOD.**

8 Section 115(c) of the Federal Oil and Gas Royalty
9 Management Act of 1982 (30 U.S.C. 1724(c)) is amended
10 by adding at the end the following:

11 “(3) ADJUSTMENTS.—In the case of an adjust-
12 ment under section 111A(a) (30 U.S.C. 1721a(a)) in
13 which a recoupment by the lessee results in an un-
14 derpayment of an obligation, for purposes of this Act
15 the obligation becomes due on the date the lessee or
16 its designee makes the adjustment.”.

17 **SEC. 7214. TOLLING AGREEMENTS AND SUBPOENAS.**

18 (a) TOLLING AGREEMENTS.—Section 115(d)(1) of
19 the Federal Oil and Gas Royalty Management Act of 1982
20 (30 U.S.C. 1724(d)(1)) is amended by striking “(with no-
21 tice to the lessee who designated the designee)”.

22 (b) SUBPOENAS.—Section 115(d)(2)(A) of the Fed-
23 eral Oil and Gas Royalty Management Act of 1982 (30
24 U.S.C. 1724(d)(2)(A)) is amended by striking “(with no-

1 tice to the lessee who designated the designee, which notice
2 shall not constitute a subpoena to the lessee)”.
3

4 **SEC. 7215. LIABILITY FOR ROYALTY PAYMENTS.**

5 Section 102(a) of the Federal Oil and Gas Royalty
6 Management Act of 1982 (30 U.S.C. 1712(a)) is amended
7 to read as follows:

8 “(a) In order to increase receipts and achieve effec-
9 tive collections of royalty and other payments, a lessee who
10 is required to make any royalty or other payment under
11 a lease or under the mineral leasing laws, shall make such
12 payments in the time and manner as may be specified by
13 the Secretary or the applicable delegated State. Any per-
14 son who pays, offsets or credits monies, makes adjust-
15 ments, requests and receives refunds, or submits reports
16 with respect to payments the lessee must make is the les-
17 see’s designee under this Act. Notwithstanding any other
18 provision of this Act to the contrary, a designee shall be
19 liable for any payment obligation of any lessee on whose
20 behalf the designee pays royalty under the lease. The per-
21 son owning operating rights in a lease and a person own-
22 ing legal record title in a lease shall be liable for that per-
23 son’s pro rata share of payment obligations under the
lease.”.

1 **CHAPTER 3—PUBLIC INTEREST IN THE**
2 **FEDERAL ENERGY PROGRAM**

3 **SEC. 7221. SURFACE OWNER PROTECTION.**

4 (a) DEFINITIONS.—As used in this section—

5 (1) the term “Secretary” means the Secretary
6 of the Interior;

7 (2) the term “lease” means a lease issued by
8 the Secretary under the Mineral Leasing Act (30
9 U.S.C. 181 et seq.);

10 (3) the term “lessee” means the holder of a
11 lease; and

12 (4) the term “operator” means any person that
13 is responsible under the terms and conditions of a
14 lease for the operations conducted on leased lands or
15 any portion thereof.

16 (b) POST-LEASE SURFACE USE AGREEMENT.—

17 (1) IN GENERAL.—Except as provided in sub-
18 section (c), the Secretary may not authorize any op-
19 erator to conduct exploration and drilling operations
20 on lands with respect to which title to oil and gas
21 resources is held by the United States but title to
22 the surface estate is not held by the United States,
23 until the operator has filed with the Secretary a doc-
24 ument, signed by the operator and the surface owner
25 or owners, showing that the operator has secured a

1 written surface use agreement between the operator
2 and the surface owner or owners that meets the re-
3 quirements of paragraph (2).

4 (2) CONTENTS.—The surface use agreement
5 shall provide for—

6 (A) the use of only such portion of the sur-
7 face estate as is reasonably necessary for explo-
8 ration and drilling operations based on site-spe-
9 cific conditions;

10 (B) the accommodation of the surface es-
11 tate owner to the maximum extent practicable,
12 including the location, use, timing, and type of
13 exploration and drilling operations, consistent
14 with the operator's right to develop the oil and
15 gas estate;

16 (C) the reclamation of the site to a condi-
17 tion capable of supporting the uses which such
18 lands were capable of supporting prior to explo-
19 ration and drilling operations or other uses as
20 agreed to by the operator and the surface
21 owner; and

22 (D) compensation for damages as a result
23 of exploration and drilling operations, including
24 but not limited to—

- 1 (i) loss of income and increased costs
2 incurred;
3 (ii) damage to or destruction of per-
4 sonal property, including crops, forage, and
5 livestock; and
6 (iii) failure to reclaim the site in ac-
7 cordance with this subparagraph (C).

8 (3) PROCEDURE.—

9 (A) IN GENERAL.—An operator shall no-
10 tify the surface estate owner or owners of the
11 operator's desire to conclude an agreement
12 under this section. If the surface estate owner
13 and the operator do not reach an agreement
14 within 90 days after the operator has provided
15 such notice, the matter shall be referred to
16 third party arbitration for resolution within a
17 period of 90 days. The cost of such arbitration
18 shall be the responsibility of the operator.

19 (B) IDENTIFICATION OF ARBITERS.—The
20 Secretary shall identify persons with experience
21 in conducting arbitrations and shall make this
22 information available to operators and surface
23 owners.

24 (C) REFERRAL TO IDENTIFIED ARBI-
25 TER.—Referral of a matter for arbitration by a

1 person identified by the Secretary pursuant to
2 subparagraph (B) shall be sufficient to con-
3 stitute compliance with subparagraph (A).

4 (4) ATTORNEYS FEES.—If action is taken to
5 enforce or interpret any of the terms and conditions
6 contained in a surface use agreement, the prevailing
7 party shall be reimbursed by the other party for rea-
8 sonable attorneys fees and actual costs incurred, in
9 addition to any other relief which a court or arbitra-
10 tion panel may grant.

11 (c) AUTHORIZED EXPLORATION AND DRILLING OP-
12 ERATIONS.—

13 (1) AUTHORIZATION WITHOUT SURFACE USE
14 AGREEMENT.—The Secretary may authorize an op-
15 erator to conduct exploration and drilling operations
16 on lands covered by subsection (b) in the absence of
17 an agreement with the surface estate owner or own-
18 ers, if—

19 (A) the Secretary makes a determination
20 in writing that the operator made a good faith
21 attempt to conclude such an agreement, includ-
22 ing referral of the matter to arbitration pursu-
23 ant to subsection (b)(3), but that no agreement
24 was concluded within 90 days after the referral
25 to arbitration;

1 (B) the operator submits a plan of oper-
2 ations that provides for the matters specified in
3 subsection (b)(2) and for compliance with all
4 other applicable requirements of Federal and
5 State law; and

6 (C) the operator posts a bond or other fi-
7 nancial assurance in an amount the Secretary
8 determines to be adequate to ensure compensa-
9 tion to the surface estate owner for any dam-
10 ages to the site, in the form of a surety bond,
11 trust fund, letter of credit, government security,
12 certificate of deposit, cash, or equivalent.

13 (2) SURFACE OWNER PARTICIPATION.—The
14 Secretary shall provide surface estate owners with
15 an opportunity to—

16 (A) comment on plans of operations in ad-
17 vance of a determination of compliance with
18 this section;

19 (B) participate in bond level determina-
20 tions and bond release proceedings under this
21 subsection;

22 (C) attend an on-site inspection during
23 such determinations and proceedings;

24 (D) file written objections to a proposed
25 bond release; and

1 (E) request and participate in an on-site
2 inspection when they have reason to believe
3 there is a violation of the terms and conditions
4 of a plan of operations.

5 (3) PAYMENT OF FINANCIAL GUARANTEE.—A
6 surface estate owner with respect to any land subject
7 to a lease may petition the Secretary for payment of
8 all or any portion of a bond or other financial assur-
9 ance required under this subsection as compensation
10 for any damages as a result of exploration and drill-
11 ing operations. Pursuant to such a petition, the Sec-
12 retary may use such bond or other guarantee to pro-
13 vide compensation to the surface estate owner for
14 such damages.

15 (4) BOND RELEASE.—Upon request and after
16 inspection and opportunity for surface estate owner
17 review, the Secretary may release the financial as-
18 surance required under this subsection if the Sec-
19 retary determines that exploration and drilling oper-
20 ations have ended and all damages have been fully
21 compensated.

22 (d) SURFACE OWNER NOTIFICATION.—The Sec-
23 retary shall—

24 (1) notify surface estate owners in writing at
25 least 45 days in advance of lease sales;

1 (2) within ten working days after a lease is
2 issued, notify surface estate owners regarding the
3 identity of the lessee;

4 (3) notify surface estate owners in writing with-
5 in 10 working days concerning any subsequent deci-
6 sions regarding a lease, such as modifying or
7 waiving stipulations and approving rights-of-way;
8 and

9 (4) notify surface estate owners within five
10 business days after issuance of a drilling permit
11 under a lease.

12 (e) REGULATIONS.—The Secretary shall issue regula-
13 tions implementing this section by not later than 1 year
14 after the date of the enactment of this Act.

15 (f) RELATIONSHIP TO STATE LAW.—Nothing in this
16 section preempts applicable State law or regulation relat-
17 ing to surface owner protection.

18 **SEC. 7222. ONSHORE OIL AND GAS RECLAMATION AND**
19 **BONDING.**

20 Section 17 of the Mineral Leasing Act (30 U.S.C.
21 226) is amended by adding at the end the following:

22 “(q) RECLAMATION REQUIREMENTS.—An operator
23 producing oil or gas (including coalbed methane) under
24 a lease issued pursuant to this Act shall—

1 “(1) at a minimum restore the land affected to
2 a condition capable of supporting the uses that it
3 was capable of supporting prior to any drilling, or
4 higher or better uses of which there is reasonable
5 likelihood, so long as such use or uses do not present
6 any actual or probable hazard to public health or
7 safety or pose any actual or probable threat of water
8 diminution or pollution, and the permit applicants’
9 declared proposed land use following reclamation is
10 not impractical or unreasonable, inconsistent with
11 applicable land use policies and plans, or involve un-
12 reasonable delay in implementation, or is violative of
13 Federal or State law;

14 “(2) ensure that all reclamation efforts proceed
15 in an environmentally sound manner and as contem-
16 poraneously as practicable with the oil and gas drill-
17 ing operations; and

18 “(3) submit with the plan of operations a rec-
19 lamation plan that describes in detail the methods
20 and practices that will be used to ensure complete
21 and timely restoration of all lands affected by oil
22 and gas operations.

23 “(r) RECLAMATION BOND OR OTHER FINANCIAL AS-
24 SURANCES.—An operator producing oil or gas (including
25 coalbed methane) under a lease issued under this Act shall

1 post a bond or other financial assurances that cover the
2 reclamation of that area of land within the permit area
3 upon which the operator will initiate and conduct oil and
4 gas drilling and reclamation operations within the initial
5 term of the permit. As succeeding increments of oil and
6 gas drilling and reclamation operations are to be initiated
7 and conducted within the permit area, the lessee shall file
8 with the regulatory authority an additional bond or bonds
9 or other financial assurances to cover such increments in
10 accordance with this section. The amount of the bond or
11 other financial assurances required for each bonded area
12 shall depend upon the reclamation requirements of the ap-
13 proved permit; shall reflect the probable difficulty of rec-
14 lamation giving consideration to such factors as topog-
15 raphy, geology of the site, hydrology, and revegetation po-
16 tential; and shall be determined by the Secretary. The
17 amount of the bond or other financial assurances shall be
18 sufficient to assure the completion of the reclamation plan
19 if the work had to be performed by the Secretary in the
20 event of forfeiture.

21 “(s) REGULATIONS.—No later than one year after
22 the date of the enactment of this subsection, the Secretary
23 shall promulgate regulations to implement the require-
24 ments, including for the release of bonds or other financial
25 assurances, of subsections (q) and (r).”.

1 **SEC. 7223. PROTECTION OF WATER RESOURCES.**

2 (a) MINERAL LEASING ACT REQUIREMENTS.—Sec-
3 tion 17 of the Mineral Leasing Act (30 U.S.C. 226) is
4 further amended by adding at the end the following:

5 “(t) WATER REQUIREMENTS.—

6 “(1) IN GENERAL.—An operator producing oil
7 or gas (including coalbed methane) under a lease
8 issued under this Act shall—

9 “(A) remediate or replace the water supply
10 of a water user who obtains all or part of such
11 user’s supply of water for domestic, agricul-
12 tural, or other purposes from an underground
13 or surface source that has been affected by con-
14 tamination, diminution, or interruption proxi-
15 mately resulting from drilling operations for
16 such production; and

17 “(B) comply with all applicable require-
18 ments of Federal and State law for discharge of
19 any water produced under the lease.

20 “(2) WATER MANAGEMENT PLAN.—An applica-
21 tion for a permit to drill submitted pursuant to a
22 lease issued under this Act shall be accompanied by
23 a proposed water management plan including provi-
24 sions to—

25 “(A) protect the quantity and quality of
26 surface and ground water systems, both on-site

1 and off-site, from adverse effects of the explo-
2 ration, development, and reclamation processes
3 or to provide alternative sources of water if
4 such protection cannot be assured;

5 “(B) protect the rights of present users of
6 water that would be affected by operations
7 under the lease, including the discharge of any
8 water produced in connection with such oper-
9 ations that is not reinjected; and

10 “(C) identify any agreements with other
11 parties for the beneficial use of produced waters
12 and the steps that will be taken to comply with
13 State and Federal laws related to such use.”.

14 (b) RELATION TO STATE LAW.—Nothing in this
15 chapter or any amendment made by this chapter shall—

16 (1) be construed as impairing or in any manner
17 affecting any right or jurisdiction of any State with
18 respect to the waters of such State; or

19 (2) be construed as limiting, altering, modi-
20 fying, or amending any of the interstate compacts or
21 equitable apportionment decrees that apportion
22 water among and between States.

23 (c) REGULATIONS.—No later than one year after the
24 date of the enactment of this Act, the Secretary of the

1 Interior shall promulgate regulations to implement this
2 section.

3 (d) INTENT OF CONGRESS.—Nothing in this section
4 shall be construed to be intended by Congress as a prece-
5 dent for oil and gas management on State or privately
6 owned land.

7 **SEC. 7224. DUE DILIGENCE FEE.**

8 (a) ESTABLISHMENT.—The Secretary of the Interior
9 shall, within 180 days after the date of enactment of this
10 Act, issue regulations to establish a fee with respect to
11 Federal onshore lands that are subject to a lease for pro-
12 duction of oil, natural gas, or coal under which production
13 is not occurring. Such fee shall apply with respect to lands
14 that are subject to such a lease that is in effect on the
15 date final regulations are promulgated under this sub-
16 section or that is issued thereafter.

17 (b) AMOUNT.—The amount of the fee shall be \$1 per
18 year for each acre of land that is not in production for
19 that year.

20 (c) ASSESSMENT AND COLLECTION.—The Secretary
21 shall assess and collect the fee established under this sec-
22 tion.

23 (d) DEPOSIT AND USE.—Amounts received by the
24 United States in the form of the fee established under this
25 section shall be available to the Secretary of the Interior

1 for use to repair damage to Federal lands and resources
2 caused by oil and gas development, in accordance with the
3 the documents submitted by the President with the budget
4 submission for fiscal year 2008 relating to the Healthy
5 Lands Initiative. Amounts received by the United States
6 as fees under this section shall be treated as offsetting
7 receipts.

8 **CHAPTER 4—WIND ENERGY**

9 **SEC. 7231. WIND TURBINE GUIDELINES ADVISORY COM-**
10 **MITTEE.**

11 (a) IN GENERAL.—The Secretary of the Interior,
12 within 30 days after the date of enactment of this Act,
13 shall convene or utilize an existing Wind Turbine Guide-
14 lines Advisory Committee to study and make recommenda-
15 tions to the Secretary on guidance for avoiding or mini-
16 mizing impacts to wildlife and their habitats related to
17 land-based wind energy facilities. The matters assessed by
18 the Committee shall include the following:

19 (1) The Service Interim Guidance on Avoiding
20 and Minimizing Wildlife Impacts from Wind Tur-
21 bines of 2003.

22 (2) Balancing potential impacts to wildlife with
23 requirements for acquiring the information necessary
24 to assess those impacts prior to selecting sites and
25 designing facilities.

1 (3) The scientific tools and procedures best able
2 to assess pre-development risk or benefits provided
3 to wildlife, measure post-development mortality, as-
4 sess behavioral modification, and provide compen-
5 satory mitigation for unavoidable impacts.

6 (4) A process for coordinating State, tribal,
7 local, and national review and evaluation of the im-
8 pacts to wildlife from wind energy consistent with
9 State and Federal laws and international treaties.

10 (5) Determination of project size thresholds or
11 impacts below which guidelines may not apply.

12 (6) Appropriate timetables for phasing-in guid-
13 ance.

14 (7) Current State actions to avoid and minimize
15 wildlife impacts from wind turbines in consultation
16 with State wildlife agencies.

17 (b) COMMITTEE OPERATIONS.—The Wind Turbine
18 Guidelines Advisory Committee shall conduct its activities
19 in accordance with the Federal Advisory Committee Act
20 (5 U.S.C. App.). The Secretary is authorized to provide
21 such technical analyses and support as is requested by
22 such advisory committee.

23 (c) COMMITTEE MEMBERSHIP.—The membership of
24 the Wind Turbine Guidelines Advisory Committee shall
25 not exceed 20 members, and shall be appointed by the Sec-

1 retary of the Interior to achieve balanced representation
2 of wind energy development, wildlife conservation, and
3 government. The members shall include representatives
4 from the United States Fish and Wildlife Service and
5 other Federal agencies, and representatives from other in-
6 terested persons, including States, tribes, wind energy de-
7 velopment organizations, nongovernmental conservation
8 organizations, and local regulatory or licensing commis-
9 sions.

10 (d) REPORT.—The Wind Turbine Advisory Com-
11 mittee shall, within 18 months after the date of enactment
12 of this Act, submit a report to Congress and the Secretary
13 providing recommended guidance for developing effective
14 measures to protect wildlife resources and enhance poten-
15 tial benefits to wildlife that may be identified.

16 (e) ISSUANCE OF GUIDANCE.—Not later than 6
17 months after receiving the report of the Wind Turbine
18 Guidelines Advisory Committee under subsection (d), the
19 Secretary shall following public notice and comment issue
20 final guidance to avoid and minimize impacts to wildlife
21 and their habitats related to land-based wind energy facili-
22 ties. Such guidance shall be based upon the findings and
23 recommendations made in the report.

1 **SEC. 7232. AUTHORIZATION OF APPROPRIATIONS FOR RE-**
2 **SEARCH TO STUDY WIND ENERGY IMPACTS**
3 **ON WILDLIFE.**

4 There is authorized to be appropriated to the Sec-
5 retary of the Interior \$2,000,000 for each of fiscal years
6 2008 through 2015 for new and ongoing research efforts
7 to evaluate methods for minimizing wildlife impacts at
8 wind energy projects and to explore effective mitigation
9 methods that may be utilized for that purpose.

10 **SEC. 7233. ENFORCEMENT.**

11 The Secretary shall enforce the Endangered Species
12 Act of 1973, the Migratory Bird Treaty Act, the Bald
13 Eagle Protection Act, the Golden Eagle Protection Act,
14 the Marine Mammal Protection Act of 1973, the National
15 Environmental Policy Act of 1969, and any other relevant
16 Federal law to address adverse wildlife impacts related to
17 wind projects. Nothing in this section preempts State en-
18 forcement of applicable State laws.

19 **SEC. 7234. SAVINGS CLAUSE.**

20 Nothing in this chapter preempts any provision of
21 State law or regulation relating to the siting of wind
22 projects or to consideration or review of any environmental
23 impacts of wind projects.

**CHAPTER 5—ENHANCING ENERGY
TRANSMISSION**

SEC. 7241. POWER MARKETING ADMINISTRATIONS REPORT.

(a) ANALYSIS.—The Secretary of Energy, acting through the Administrator of the Bonneville Area Power Marketing Administration in consultation with the Western Area Power Marketing Administration, and in coordination with regional transmission entities, shall conduct, or participate with such regional transmission entities to conduct, an analysis of the existing capacity of transmission systems serving the States of California, Oregon, and Washington to determine whether the existing capacity is adequate to accommodate and integrate development and commercial operation of ocean wave, tidal, and current energy projects in State and Federal marine waters adjacent to those States.

(b) REPORT.—Based on the analysis conducted under subsection (a), the Secretary of Energy shall prepare and provide to the Natural Resources Committee of the House of Representatives and the Energy and Natural Resources Committee of the Senate, not later than one year after the date of enactment of this Act, a report identifying changes required, if any, in the capacity of existing transmission systems serving the States referred to in subsection (a) in order to reliably and efficiently accommodate

1 and integrate generation from commercial ocean wave,
 2 tidal, and current energy projects in aggregate, escalating
 3 amounts equal to 2.5, 5, and 10 percent of the current
 4 electrical energy consumption in those States.

5 (c) ACTIVITIES NONREIMBURSABLE.—Activities car-
 6 ried out under subsection (a) or (b) shall be nonreimburs-
 7 able.

8 (d) EXISTING PROCEDURES AND QUEUING NOT AF-
 9 FECTED.—Nothing in this section supercedes existing pro-
 10 cedures and queuing pursuant to the appropriate Open
 11 Access Transmission Tariffs filed by the Administrators
 12 of the Bonneville and Western Area Power Administra-
 13 tions.

14 **Subtitle C—Alternative Energy and** 15 **Efficiency**

16 **SEC. 7301. STATE OCEAN AND COASTAL ALTERNATIVE EN-** 17 **ERGY PLANNING.**

18 (a) IN GENERAL.—The Coastal Zone Management
 19 Act of 1972 (16 U.S.C. 1451 et seq.) is amended by in-
 20 serting after section 306A the following:

21 “OCEAN AND COASTAL ALTERNATIVE ENERGY STATE
 22 SURVEYS; ALTERNATIVE ENERGY SITE IDENTIFICA-
 23 TION AND PLANNING

24 “SEC. 306B. (a) GRANTS TO STATES.—The Sec-
 25 retary may make grants to eligible coastal States to sup-
 26 port voluntary State efforts to initiate and complete sur-

1 veys of portions of coastal State waters and Federal wa-
2 ters adjacent to a State’s coastal zone, in consultation
3 with the Minerals Management Service, to identify poten-
4 tial areas suitable or unsuitable for the exploration, devel-
5 opment, and production of alternative energy that are con-
6 sistent with the enforceable policies of coastal manage-
7 ment plans approved pursuant to section 306(d).

8 “(b) SURVEY ELEMENTS.—Surveys developed with
9 grants under this section may include, but not be limited
10 to—

11 “(1) hydrographic and bathymetric surveys;

12 “(2) oceanographic observations and measure-
13 ments of the physical ocean environment, especially
14 seismically active areas;

15 “(3) identification and characterization of sig-
16 nificant or sensitive marine ecosystems or other
17 areas possessing important conservation, rec-
18 reational, ecological, historic, or aesthetic values;

19 “(4) surveys of existing marine uses in the
20 outer Continental Shelf and identification of poten-
21 tial conflicts;

22 “(5) inventories and surveys of shore locations
23 and infrastructure capable of supporting alternative
24 energy development;

1 “(6) inventories and surveys of offshore loca-
2 tions and infrastructure capable of supporting alter-
3 native energy development; and

4 “(7) other actions as may be necessary.

5 “(c) PARTICIPATION AND COOPERATION.—To the ex-
6 tent practicable, coastal States shall provide opportunity
7 for the participation in surveys under this section by rel-
8 evant Federal agencies, State agencies, local governments,
9 regional organizations, port authorities, and other inter-
10 ested parties and stakeholders, public and private, that is
11 adequate to develop a comprehensive survey.

12 “(d) GUIDELINES.—The Secretary shall, within 180
13 days after the date of enactment of this section and after
14 consultation with the coastal States, publish guidelines for
15 the application for and use of grants under this section.

16 “(e) ANNUAL GRANTS.—For each of fiscal years
17 2008 through 2011, the Secretary may make a grant to
18 a coastal State under this section if the coastal State dem-
19 onstrates to the satisfaction of the Secretary that the
20 grant will be used to develop an alternative energy survey
21 consistent with the requirements set forth in this section.

22 “(f) GRANT AMOUNTS.—The amount of any grant
23 under this section shall not exceed \$750,000 for any fiscal
24 year.

25 “(g) STATE MATCH.—

1 “(1) BEFORE FISCAL YEAR 2010.—The Sec-
2 retary shall not require any State matching fund
3 contribution for grants awarded under this section
4 for any fiscal year before fiscal year 2010.

5 “(2) AFTER FISCAL YEAR 2010.—The Secretary
6 shall require a coastal State to provide a matching
7 fund contribution for a grant under this section for
8 surveys of a State’s coastal waters, according to—

9 “(A) a 2-to-1 ratio of Federal-to-State con-
10 tributions for fiscal year 2010; and

11 “(B) a 1-to-1 ratio of Federal-to-State
12 contributions for fiscal year 2011.

13 “(3) LIMITATION.—The Secretary shall not re-
14 quire any matching funds for surveys of Federal wa-
15 ters adjacent to a State’s coastal zone.

16 “(h) SECRETARIAL REVIEW.—After an initial grant
17 is made to a coastal State under this section, no subse-
18 quent grant may be made to that coastal State under this
19 section unless the Secretary finds that the coastal State
20 is satisfactorily developing its survey.

21 “(i) LIMITATION ON ELIGIBILITY.—No coastal State
22 is eligible to receive grants under this section for more
23 than 4 fiscal years.

24 “(j) APPLICABILITY.—This section and the surveys
25 conducted with assistance under this section shall not be

1 construed to convey any new authority to any coastal
2 State, or repeal or supersede any existing authority of any
3 Federal agency, to regulate the siting, licensing, leasing,
4 or permitting of alternative energy facilities in areas of
5 the outer Continental Shelf under the administration of
6 the Federal Government. Nothing in this section repeals
7 or supersedes any existing coastal State authority pursu-
8 ant to State or Federal law.

9 “(k) PRIORITY.—Any area that is identified as suit-
10 able for potential alternative energy development under
11 surveys developed with assistance under this section shall
12 be given priority consideration by Federal agencies for the
13 siting, licensing, leasing, or permitting of alternative en-
14 ergy facilities. Any area that is identified as unsuitable
15 under surveys developed with assistance under this section
16 shall be avoided by Federal agencies to the maximum ex-
17 tent practicable.

18 “(l) ASSISTANCE BY THE SECRETARY.—The Sec-
19 retary shall—

20 “(1) under section 307(a) and to the extent
21 practicable, make available to coastal States the re-
22 sources and capabilities of the National Oceanic and
23 Atmospheric Administration to provide technical as-
24 sistance to the coastal States to develop surveys
25 under this section; and

1 “(2) encourage other Federal agencies with rel-
2 evant expertise to participate in providing technical
3 assistance under this subsection.”.

4 (b) AUTHORIZATION OF APPROPRIATIONS.—Section
5 318(a) of the Coastal Zone Management Act of 1972 (16
6 U.S.C. 1464) is amended—

7 (1) in paragraph (1)(C) by striking “and” after
8 the semicolon;

9 (2) in paragraph (2), by striking the period at
10 the end and inserting a semicolon; and

11 (3) by adding at the end the following:

12 “(3) for grants under section 306B such sums
13 as are necessary; and”.

14 **SEC. 7302. CANAL-SIDE POWER PRODUCTION AT BUREAU**
15 **OF RECLAMATION PROJECTS.**

16 (a) EVALUATION AND REPORT.—Not later than one
17 year after the date of the enactment of this Act, the Sec-
18 retary of the Interior shall complete an evaluation and re-
19 port to Congress on the potential for developing rights-
20 of-way along Bureau of Reclamation canals and infra-
21 structure for solar or wind energy production through
22 leasing of lands or other means. The report to Congress
23 shall specify—

24 (1) location of potential rights-of-way for en-
25 ergy production;

1 (2) total acreage available for energy produc-
2 tion;

3 (3) existing transmission infrastructure at sites;

4 (4) estimates of fair market leasing value of po-
5 tential energy sites; and

6 (5) estimate energy development potential at
7 sites.

8 (b) CONSULTATION.—In carrying out this section the
9 Secretary of the Interior shall consult with persons that
10 would be affected by development of rights-of-ways re-
11 ferred to in subsection (a), including the beneficiaries of
12 the canal and infrastructure evaluated under that sub-
13 section.

14 (c) LIMITATIONS.—Nothing in this section—

15 (1) shall be construed to authorize the Bureau
16 of Reclamation or any contractor hired by the Bu-
17 reau of Reclamation to inventory or access rights-of-
18 way owned or operated and maintained by non-Fed-
19 eral interests, unless such interests provide written
20 permission for such inventory or an agreement or
21 contract governing Federal access is in effect;

22 (2) shall be construed to impede accessibility,
23 impair project operations and maintenance, or create
24 additional costs for entities managing the rights-of-
25 way; or

1 (3) shall be used as the basis of an increase in
2 project-use power or preference power costs that will
3 be borne by the consumer.

4 **SEC. 7303. INCREASING ENERGY EFFICIENCIES FOR WATER**
5 **DESALINATION.**

6 The Water Desalination Act of 1996 (42 U.S.C.
7 10301 note; Public Law 104–298) is amended by adding
8 at the end the following new section:

9 **“SEC. 10. RESEARCH ON REVERSE OSMOSIS TECHNOLOGY**
10 **FOR WATER DESALINATION AND WATER RE-**
11 **CYCLING.**

12 “(a) RESEARCH PROGRAM.—The Secretary of the In-
13 terior, in consultation with the Secretary of Energy, shall
14 implement a program to research methods for improving
15 the energy efficiency of reverse osmosis technology for
16 water desalination, water contamination, and water recy-
17 cling.

18 “(b) REPORT.—Not later than one year after the
19 date of the enactment of this Act, the Secretary of the
20 Interior shall submit to Congress a report which shall in-
21 clude—

22 “(1) a review of existing and emerging tech-
23 nologies, both domestic and international, that are
24 likely to improve energy efficiency or utilize renew-

1 able energy sources at existing and future desalina-
2 tion and recycling facilities; and

3 “(2) an analysis of the economic viability of en-
4 ergy efficiency technologies.”.

5 **SEC. 7304. ESTABLISHING A PILOT PROGRAM FOR THE DE-**
6 **VELOPMENT OF STRATEGIC SOLAR RE-**
7 **SERVES ON FEDERAL LANDS.**

8 (a) PURPOSE.—The purpose of this section is to es-
9 tablish a pilot program for the development of strategic
10 solar reserves on Federal lands for the advancement, de-
11 velopment, assessment, and installation of commercial
12 solar electric energy systems.

13 (b) STRATEGIC SOLAR RESERVE PILOT PROGRAM.—

14 (1) SITE SELECTION.—The Secretary of the In-
15 terior, in consultation with the Secretary of Energy,
16 the Secretary of Defense, and the Federal Energy
17 Regulatory Commission, States, tribal, or local units
18 of governments, as appropriate, affected utility in-
19 dustries, and other interested persons, shall complete
20 the following:

21 (A) Identify Federal lands under the juris-
22 diction of the Bureau of Land Management,
23 subject to valid existing rights, that are suitable
24 and feasible for the installation of solar electric
25 energy systems sufficient to create a solar en-

1 ergy reserve of no less than 4 GW and no more
2 than 25 GW.

3 (B) Perform any environmental reviews
4 that may be required to complete the designa-
5 tion of such solar reserves.

6 (C) Incorporate the designated solar re-
7 serves into the relevant agency land use and re-
8 source management plans or equivalent plans.

9 (D) Identify the needed transmission up-
10 grades to the solar reserves.

11 (2) MINIMUM POWER OF SITES.—Each site
12 identified as suitable and feasible for the installation
13 of solar electric energy systems shall be sufficient for
14 the installation of at least 1 GW.

15 (3) LANDS NOT INCLUDED.—The following
16 Federal lands shall not be included within a stra-
17 tegic solar reserve site:

18 (A) Components of the National Land-
19 scape Conservation System.

20 (B) Areas of Critical Environmental Con-
21 cern.

22 (4) IMPLEMENTATION OF THE PILOT PROGRAM
23 FOR STRATEGIC SOLAR RESERVES.—

24 (A) IN GENERAL.—The Secretary of the
25 Interior, in consultation with the Secretary of

1 Energy and following the completion of the re-
2 quirements under paragraph (1)(B), shall expe-
3 ditiously implement a strategic solar reserve
4 pilot program in order to issue rights-of-way on
5 land identified under paragraph (1)(A) to
6 produce no less than 4 GW and no more than
7 25 GW of solar electric power from that land.

8 (B) CRITERIA FOR APPLICATIONS.—The
9 Secretary of the Interior, in consultation with
10 the Secretary of Energy, shall establish criteria
11 for approving applications to obtain rights-of-
12 way on land under this paragraph based, in
13 part, on the proposed solar electric energy tech-
14 nologies proposed to be used on such rights-of-
15 way.

16 (C) VARIETY OF TECHNOLOGIES.—The
17 Secretary of the Interior, in consultation with
18 the Secretary of Energy, shall provide for a va-
19 riety of solar electric energy technologies to be
20 used on rights-of-way on land under this para-
21 graph.

22 (D) MILESTONES.—The Secretary of the
23 Interior, in consultation with the Secretary of
24 Energy, shall develop milestones for activities
25 on rights-of-way on land under this paragraph

1 to ensure due diligence in the development of
2 such land.

3 (5) ENVIRONMENTAL COMPLIANCE.—The Sec-
4 retary of the Interior shall complete all necessary en-
5 vironmental surveys, compliance, and permitting for
6 rights-of-way pursuant to title V of the Federal
7 Land Policy and Management Act of 1976 for each
8 strategic solar reserve, as expeditiously as possible.
9 Each applicant shall pay all costs of environmental
10 compliance, including when a determination is made
11 that the land that is the subject of the application
12 is not suitable and feasible for installation or the bid
13 is withdrawn following the initiation of such environ-
14 mental compliance.

15 (6) PERMITS.—The Secretary of the Interior
16 shall ensure that all strategic solar reserve installa-
17 tions pursuant to this section are permitted using an
18 expedited permitting process. The Secretary shall, in
19 consultation with the Secretary of Energy, complete
20 the preparation of a Programmatic Environmental
21 Impact Statement by the Departments of Energy
22 and the Interior for purposes of this section.

23 (7) RENTAL FEE; RIGHT-OF-WAY TERM.—

24 (A) RENTAL FEE.—The rental fee for each
25 strategic solar reserve right-of-way under this

1 subsection shall be in the amount of \$300 per
2 acre per year for the initial 10-year period, ex-
3 cept that the rental fee shall be phased-in for
4 a right-of-way during the initial 3 years after
5 the signing of the right-of-way authorization.
6 For the first year the rental fee shall be 25 per-
7 cent of that amount. For the second year the
8 rental fee shall be 50 percent of that amount.
9 For the third year and each year thereafter the
10 fee shall be 100 percent of that amount, except
11 that the rental fee after the initial 10-year pe-
12 riod shall be adjusted by the Secretary of the
13 Interior according to the Gross Domestic Prod-
14 uct Implicit Price Deflator each year for the re-
15 mainder of the term of the right-of-way author-
16 ization. The rental fee shall be paid in annual
17 payments commencing on the day the right-of-
18 way authorization is signed. The rental fee es-
19 tablished by this paragraph shall apply to all
20 solar electric projects that have pending appli-
21 cations with the Bureau of Land Management
22 as of June 1, 2007.

23 (B) TERM.—Each right-of-way authoriza-
24 tion shall be effective for an initial term of 30

1 years. Such term may be extended by the Sec-
2 retary of the Interior for periods of 10 years.

3 (8) REPORT TO CONGRESS.—The Secretary of
4 the Interior, in consultation with the Secretary of
5 Energy, shall submit a report to Congress on the
6 findings of the pilot program—

7 (A) not later than 3 years after the instal-
8 lation of the first facility pursuant to this sec-
9 tion; and

10 (B) 10 years after the installation of the
11 first facility pursuant to this section.

12 (c) BUY AMERICAN ACT.—Beginning 3 years after
13 the date of enactment of this Act, any equipment used
14 on lands included within a strategic solar reserve site must
15 be American-made, as that term is used in the Buy Amer-
16 ican Act (41 U.S.C. 10a et seq.).

17 (d) SUNSET.—Except as provided in subsection
18 (b)(7), the authorities contained in this section shall expire
19 10 years after the date of the enactment of this Act.

20 **SEC. 7305. OTEC REGULATIONS.**

21 The Administrator of the National Oceanic and At-
22 mospheric Administration shall, within two years after the
23 date of enactment of this Act, issue regulations necessary
24 to implement the Administrator's authority to license off-
25 shore thermal energy conversion facilities under the Ocean

1 Thermal Energy Conversion Research, Development, and
2 Demonstration Act (42 U.S.C. 9001 et seq.).

3 **SEC. 7306. BIOMASS UTILIZATION PILOT PROGRAM.**

4 (a) REPLACEMENT OF CURRENT GRANT PRO-
5 GRAM.—Section 210 of the Energy Policy Act of 2005 (42
6 U.S.C. 15855) is amended to read as follows:

7 **“SEC. 210. BIOMASS UTILIZATION PILOT PROGRAM.**

8 “(a) FINDINGS.—Congress finds the following:

9 “(1) The supply of woody biomass for energy
10 production is directly linked to forest management
11 planning to a degree far greater than in the case of
12 other types of energy development.

13 “(2) As a consequence of this linkage, the proc-
14 ess of developing and evaluating appropriate tech-
15 nologies and facilities for woody biomass energy and
16 utilization must be integrated with long-term forest
17 management planning processes, particularly in situ-
18 ations where Federal lands dominate the forested
19 landscape.

20 “(b) BIOMASS DEFINITION FOR FEDERAL FOREST
21 LANDS.—In this section, with respect to organic material
22 removed from National Forest System lands or from pub-
23 lic lands administered by the Secretary of the Interior, the
24 term ‘biomass’ covers only organic material from—

25 “(1) ecological forest restoration;

- 1 “(2) small-diameter byproducts of hazardous
- 2 fuels treatments;
- 3 “(3) pre-commercial thinnings;
- 4 “(4) brush;
- 5 “(5) mill residues; and
- 6 “(6) slash.

7 “(c) PILOT PROGRAM.—The Secretary of Agriculture
8 and the Secretary of the Interior shall establish a pilot
9 program, to be known as the ‘Biomass Utilization Pilot
10 Program’, involving 10 different forest types on Federal
11 lands, under which the Secretary concerned will provide
12 technical assistance and grants to persons to support the
13 following biomass-related activities:

14 “(1) The development of biomass utilization in-
15 frastructure to support hazardous fuel reduction and
16 ecological forest restoration.

17 “(2) The research and implementation of inte-
18 grated facilities that seek to utilize woody biomass
19 for its highest and best uses, with particular empha-
20 sis on projects that are linked to implementing com-
21 munity wildfire protection plans, ecological forest
22 restoration, and economic development in rural com-
23 munities.

24 “(3) The testing of multiple technologies and
25 approaches to biomass utilization for energy, with

1 emphasis on improving energy efficiency, developing
2 thermal applications and distributed heat, biofuels,
3 and achieving cleaner emissions including through
4 combustion with other fuels, as well as other value-
5 added uses.

6 “(d) BIOMASS SUPPLY STUDY.—Prior to the develop-
7 ment of any biomass utilization pilot projects, the Sec-
8 retary concerned shall develop a study to determine the
9 long-term, ecologically sustainable, biomass supply avail-
10 able in the pilot program area. The study shall incorporate
11 results from coordinated resource offering protocol
12 (CROP) studies. The study shall also analyze the long-
13 term availability of biomass materials within a reasonable
14 transportation distance. The biomass supply studies shall
15 be developed through a collaborative approach, as evi-
16 denced by the broad involvement, analysis, and agreement
17 of interested persons, including local governments, energy
18 developers, conservationists, and land management agen-
19 cies. The Secretary concerned may direct a resource advi-
20 sory committee established under section 205 of the Se-
21 cure Rural Schools and Community Self-Determination
22 Act of 2000 (16 U.S.C. 500 note; Public Law 106–393),
23 and reauthorized by the amendments made by Public Law
24 110–28, to carry out the requirements of this subsection.
25 The results of the biomass supply study shall be a basis

1 for determining the project scale, as outlined in subsection
2 (g).

3 “(e) EXCLUSION OF CERTAIN FEDERAL LAND.—The
4 following Federal lands may not be included within a pilot
5 project site:

6 “(1) Federal land containing old-growth forest
7 or late-successional forest, unless the Secretary con-
8 cerned determines that the pilot project on such land
9 is appropriate for the applicable forest type and
10 maximizes and enhances the retention of late-succes-
11 sional and large- and old-growth trees, late-succes-
12 sional and old-growth forest structure, and late-suc-
13 cessional and old-growth forest composition.

14 “(2) Federal land on which the removal of vege-
15 tation is prohibited, including components of the Na-
16 tional Wilderness Preservation System.

17 “(3) Wilderness Study Areas.

18 “(4) Inventoried roadless areas.

19 “(5) Components of the National Landscape
20 Conservation System.

21 “(6) National Monuments.

22 “(f) MULTIPLE PROJECTS.—In conducting the pilot
23 program, the Secretary concerned shall include a variety
24 of projects involving—

1 “(1) innovations in facilities of various sizes
2 and processing techniques; and

3 “(2) the full spectrum of woody biomass pro-
4 ducing regions of the United States.

5 “(g) SELECTION CRITERIA AND PROJECT SCALE.—
6 In selecting the projects to be conducted under the pilot
7 program, and the appropriate scale of projects, the Sec-
8 retary concerned shall consider criteria that evaluate exist-
9 ing economic, ecological, and social conditions, focusing on
10 opportunities such as workforce training, job creation, eco-
11 system health, reducing energy costs, and facilitating the
12 production of alternative energy fuels. The agreement on
13 the scale of a project shall be reached through a collabo-
14 rative approach, as evidenced by the broad involvement,
15 analysis, and agreement of interested persons, including
16 local governments, energy developers, conservationists,
17 and land management agencies. In selecting the appro-
18 priate scale of projects to be conducted under the pilot
19 program, the Secretary concerned shall also consider the
20 results of the supply study as outlined in subsection (d).

21 “(h) MONITORING AND REPORTING REQUIRE-
22 MENTS.—As part of the pilot program, the Secretary con-
23 cerned shall impose monitoring and reporting require-
24 ments to ensure that the ecological, social, and economic
25 effects of the projects conducted under the pilot program

1 are being monitored and that the accomplishments, chal-
2 lenges, and lessons of each project are recorded and re-
3 ported.

4 “(i) OTHER DEFINITIONS.—In this section:

5 “(1) HIGHEST AND BEST USE.—The term
6 ‘highest and best use’, with regard to biomass,
7 means—

8 “(A) creating from raw materials those
9 products and those biomass uses that will
10 achieve the highest market value; and

11 “(B) yielding a wide range of existing and
12 innovative products and biomass uses that cre-
13 ate new markets, stimulate existing ones, and
14 improve rural economies, maintains or improves
15 ecosystem integrity, while also supporting tradi-
16 tional biomass energy generation.

17 “(2) PILOT PROGRAM.—The term ‘pilot pro-
18 gram’ means the Biomass Utilization Pilot Program
19 established pursuant to this section.

20 “(3) SECRETARY CONCERNED.—The term ‘Sec-
21 retary concerned’ means the Secretary of Agri-
22 culture, with respect to National Forest System
23 lands, and the Secretary of the Interior, with respect
24 to public lands administered by the Secretary of the
25 Interior.

1 “(4) COMMUNITY WILDFIRE PROTECTION
2 PLAN.—The term ‘community wildfire protection
3 plan’ has the meaning given that term in section
4 101(3) of the Healthy Forest Restoration Act of
5 2003 (16 U.S.C. 6511(3)), which is further de-
6 scribed by the Western Governors Association in the
7 document entitled ‘Preparing a Community Wildfire
8 Protection Plan: A Handbook for Wildland-Interface
9 Communities’ and dated March 2004.

10 “(5) FEDERAL LAND.—The term ‘Federal land’
11 means—

12 “(A) land of the National Forest System
13 (as defined in section 11(a) of the Forest and
14 Rangeland Renewable Resources Planning Act
15 of 1974 (16 U.S.C. 1609(a)) administered by
16 the Secretary of Agriculture, acting through the
17 Chief of the Forest Service; and

18 “(B) public lands (as defined in section
19 103 of the Federal Land Policy and Manage-
20 ment Act of 1976 (43 U.S.C. 1702)), the sur-
21 face of which is administered by the Secretary
22 of the Interior, acting through the Director of
23 the Bureau of Land Management.

24 “(6) INVENTORIED ROADLESS AREA.—The
25 term ‘Inventoried roadless area’ means one of the

1 areas identified in the set of inventoried roadless
2 areas maps contained in the Forest Service Roadless
3 Areas Conservation, Final Environmental Impact
4 Statement, Volume 2, dated November 2000.

5 “(j) AUTHORIZATION OF APPROPRIATIONS.—There
6 is authorized to be appropriated such sums as may be nec-
7 essary to carry out the pilot program.”.

8 (b) CLERICAL AMENDMENT.—The table of contents
9 in section 1(b) of such Act is amended by striking the
10 item relating to section 210 and inserting the following
11 new item:

“Sec. 210. Biomass utilization pilot program.”.

12 **SEC. 7307. PROGRAMMATIC ENVIRONMENTAL IMPACT**
13 **STATEMENT.**

14 The Secretary of Commerce and the Secretary of the
15 Interior shall, in cooperation with the Federal Energy
16 Regulatory Commission and the Secretary of Energy, and
17 in consultation with appropriate State agencies, jointly
18 prepare programmatic environmental impact statements
19 which contain all the elements of an environmental impact
20 statement under section 102 of the National Environ-
21 mental Policy Act of 1969 (42 U.S.C. 4332), regarding
22 the impacts of the deployment of marine and hydrokinetic
23 renewable energy technologies in the navigable waters of
24 the United States. One programmatic environmental im-
25 pact statement shall be prepared under this section for

1 each of the Environmental Protection Agency regions of
 2 the United States. The agencies shall issue the pro-
 3 grammatic environmental impact statements under this
 4 section not later than 18 months after the date of enact-
 5 ment of this Act. The programmatic environmental impact
 6 statements shall evaluate among other things the potential
 7 impacts of site selection on fish and wildlife and related
 8 habitat. Nothing in this section shall operate to delay con-
 9 sideration of any application for a license or permit for
 10 a marine and hydrokinetic renewable energy technology
 11 project.

12 **Subtitle D—Carbon Capture and**
 13 **Climate Change Mitigation**
 14 **CHAPTER 1—GEOLOGICAL**
 15 **SEQUESTRATION ASSESSMENT**

16 **SEC. 7401. SHORT TITLE.**

17 This chapter may be cited as the “National Carbon
 18 Dioxide Storage Capacity Assessment Act of 2007”.

19 **SEC. 7402. NATIONAL ASSESSMENT.**

20 (a) DEFINITIONS.—In this section:

21 (1) ASSESSMENT.—The term “assessment”
 22 means the national assessment of capacity for car-
 23 bon dioxide completed under subsection (f).

24 (2) CAPACITY.—The term “capacity” means the
 25 portion of a storage formation that can retain car-

1 bon dioxide in accordance with the requirements (in-
2 cluding physical, geological, and economic require-
3 ments) established under the methodology developed
4 under subsection (b).

5 (3) ENGINEERED HAZARD.—The term “engi-
6 neered hazard” includes the location and completion
7 history of any well that could affect potential stor-
8 age.

9 (4) RISK.—The term “risk” includes any risk
10 posed by geomechanical, geochemical,
11 hydrogeological, structural, and engineered hazards.

12 (5) SECRETARY.—The term “Secretary” means
13 the Secretary of the Interior, acting through the Di-
14 rector of the United States Geological Survey.

15 (6) STORAGE FORMATION.—The term “storage
16 formation” means a deep saline formation,
17 unmineable coal seam, or oil or gas reservoir that is
18 capable of accommodating a volume of industrial
19 carbon dioxide.

20 (b) METHODOLOGY.—Not later than 1 year after the
21 date of enactment of this Act, the Secretary shall develop
22 a methodology for conducting an assessment under sub-
23 section (f), taking into consideration—

24 (1) the geographical extent of all potential stor-
25 age formations in all States;

1 (2) the capacity of the potential storage forma-
2 tions;

3 (3) the injectivity of the potential storage for-
4 mations;

5 (4) an estimate of potential volumes of oil and
6 gas recoverable by injection and storage of industrial
7 carbon dioxide in potential storage formations;

8 (5) the risk associated with the potential stor-
9 age formations; and

10 (6) the Carbon Sequestration Atlas of the
11 United States and Canada that was completed by
12 the Department of Energy in April 2006.

13 (c) COORDINATION.—

14 (1) FEDERAL COORDINATION.—

15 (A) CONSULTATION.—The Secretary shall
16 consult with the Secretary of Energy and the
17 Administrator of the Environmental Protection
18 Agency on issues of data sharing, format, devel-
19 opment of the methodology, and content of the
20 assessment required under this section to en-
21 sure the maximum usefulness and success of
22 the assessment.

23 (B) COOPERATION.—The Secretary of En-
24 ergy and the Administrator shall cooperate with
25 the Secretary to ensure, to the maximum extent

1 practicable, the usefulness and success of the
2 assessment.

3 (2) STATE COORDINATION.—The Secretary
4 shall consult with State geological surveys and other
5 relevant entities to ensure, to the maximum extent
6 practicable, the usefulness and success of the assess-
7 ment.

8 (d) EXTERNAL REVIEW AND PUBLICATION.—On
9 completion of the methodology under subsection (b), the
10 Secretary shall—

11 (1) publish the methodology and solicit com-
12 ments from the public and the heads of affected
13 Federal and State agencies;

14 (2) establish a panel of individuals with exper-
15 tise in the matters described in paragraphs (1)
16 through (5) of subsection (b) composed, as appro-
17 priate, of representatives of Federal agencies, insti-
18 tutions of higher education, nongovernmental organi-
19 zations, State organizations, industry, and inter-
20 national geoscience organizations to review the
21 methodology and comments received under para-
22 graph (1); and

23 (3) on completion of the review under para-
24 graph (2), publish in the Federal Register the re-
25 vised final methodology.

1 (e) PERIODIC UPDATES.—The methodology devel-
2 oped under this section shall be updated periodically (in-
3 cluding at least once every 5 years) to incorporate new
4 data as the data becomes available.

5 (f) NATIONAL ASSESSMENT.—

6 (1) IN GENERAL.—Not later than 2 years after
7 the date of publication of the methodology under
8 subsection (d)(1), the Secretary, in consultation with
9 the Secretary of Energy and State geological sur-
10 veys, shall complete a national assessment of capac-
11 ity for carbon dioxide in accordance with the meth-
12 odology.

13 (2) GEOLOGICAL VERIFICATION.—As part of
14 the assessment under this subsection, the Secretary
15 shall carry out a drilling program to supplement the
16 geological data relevant to determining storage ca-
17 pacity of carbon dioxide in geological storage forma-
18 tions, including—

- 19 (A) well log data;
20 (B) core data; and
21 (C) fluid sample data.

22 (3) PARTNERSHIP WITH OTHER DRILLING PRO-
23 GRAMS.—As part of the drilling program under
24 paragraph (2), the Secretary shall enter, as appro-
25 priate, into partnerships with other entities to collect

1 and integrate data from other drilling programs rel-
2 evant to the storage of carbon dioxide in geologic
3 formations.

4 (4) INCORPORATION INTO NATCARB.—

5 (A) IN GENERAL.—On completion of the
6 assessment, the Secretary of Energy shall incor-
7 porate the results of the assessment using the
8 NatCarb database, to the maximum extent
9 practicable.

10 (B) RANKING.—The database shall include
11 the data necessary to rank potential storage
12 sites for capacity and risk, across the United
13 States, within each State, by formation, and
14 within each basin.

15 (5) REPORT.—Not later than 180 days after
16 the date on which the assessment is completed, the
17 Secretary shall submit to the Committee on Natural
18 Resources of the House of Representatives and the
19 Committee on Energy and Natural Resources of the
20 Senate a report describing the findings under the as-
21 sessment.

22 (6) PERIODIC UPDATES.—The national assess-
23 ment developed under this section shall be updated
24 periodically (including at least once every 5 years) to
25 support public and private sector decisionmaking.

1 (g) AUTHORIZATION OF APPROPRIATIONS.—There is
2 authorized to be appropriated to carry out this section
3 \$30,000,000 for the period of fiscal years 2008 through
4 2012.

5 **CHAPTER 2—TERRESTRIAL**
6 **SEQUESTRATION ASSESSMENT**

7 **SEC. 7421. REQUIREMENT TO CONDUCT AN ASSESSMENT.**

8 (a) IN GENERAL.—The Secretary of the Interior, act-
9 ing through the United States Geological Survey, shall—

10 (1) conduct an assessment of the amount of
11 carbon stored in terrestrial, aquatic, and coastal eco-
12 systems (including estuaries);

13 (2) determine the processes that control the
14 flux of carbon in and out of each ecosystem;

15 (3) estimate the potential for increasing carbon
16 sequestration in natural systems through manage-
17 ment measures or restoration activities in each eco-
18 system; and

19 (4) develop near-term and long-term adaptation
20 strategies that can be employed to enhance the se-
21 questration of carbon in each ecosystem.

22 (b) USE OF NATIVE PLANT SPECIES.—In developing
23 management measures, restoration activities, or adapta-
24 tion strategies, the Secretary shall emphasize the use of
25 native plant species for each ecosystem.

1 (c) CONSULTATION.—The Secretary shall develop the
2 methodology and conduct the assessment in consultation
3 with the Secretary of Energy, the Administrator of the
4 National Oceanic and Atmospheric Administration, and
5 the heads of other relevant agencies.

6 **SEC. 7422. METHODOLOGY.**

7 (a) IN GENERAL.—Within one year after the date of
8 enactment of this Act, the Secretary shall develop a meth-
9 odology for conducting the assessment.

10 (b) PUBLICATION OF PROPOSED METHODOLOGY;
11 COMMENT.—Upon completion of a proposed methodology,
12 the Secretary shall publish the proposed methodology and
13 solicit comments from the public and heads of affected
14 Federal and State agencies for 60 days before publishing
15 a final methodology.

16 **SEC. 7423. COMPLETION OF ASSESSMENT AND REPORT.**

17 The Secretary shall—

18 (1) complete the national assessment within 3
19 years after publication of the final methodology
20 under section 7422; and

21 (2) submit a report describing the results of the
22 assessment to the House Committee on Natural Re-
23 sources and the Senate Committee on Energy and
24 Natural Resources within 180 days after the assess-
25 ment is completed.

1 **SEC. 7424. AUTHORIZATION OF APPROPRIATIONS.**

2 There is authorized to be appropriated to carry out
3 this chapter \$15,000,000 for the period of fiscal years
4 2008 through 2012.

5 **CHAPTER 3—SEQUESTRATION ACTIVITIES**

6 **SEC. 7431. CARBON DIOXIDE STORAGE INVENTORY.**

7 Section 354 of the Energy Policy Act of 2005 (42
8 U.S.C. 15910) is amended by redesignating subsection (d)
9 as subsection (e), and by inserting after subsection (c) the
10 following:

11 “(d) RECORDS AND INVENTORY.—The Secretary of
12 the Interior, acting through the Bureau of Land Manage-
13 ment, shall maintain records on and an inventory of the
14 amount of carbon dioxide stored from Federal energy
15 leases.”.

16 **SEC. 7432. FRAMEWORK FOR GEOLOGICAL CARBON SE-**
17 **QUESTRATION ON FEDERAL LANDS.**

18 Not later than 1 year after the date of enactment
19 of this Act, the Secretary of the Interior shall submit to
20 the Committee on Natural Resources of the House of Rep-
21 resentatives and the Committee on Energy and Natural
22 Resources of the Senate a report on a recommended regu-
23 latory and certification framework for conducting geologi-
24 cal carbon sequestration activities on Federal lands. The
25 Secretary shall identify a lead agency within the Depart-
26 ment of the Interior to develop this framework. One of

1 the goals of the framework shall be to identify what ac-
2 tions need to be taken in order to allow for commercial-
3 scale geological carbon sequestration activities to be un-
4 dertaken on Federal lands as expeditiously as possible.

5 **CHAPTER 4—NATURAL RESOURCES AND**
6 **WILDLIFE PROGRAMS**

7 **Subchapter A—Natural Resources**
8 **Management and Climate Change**

9 **SEC. 7441. NATURAL RESOURCES MANAGEMENT COUNCIL**
10 **ON CLIMATE CHANGE.**

11 (a) ESTABLISHMENT.—The Secretary of the Interior
12 shall establish a National Resources Management Council
13 on Climate Change to address the impacts of climate
14 change on Federal lands, the ocean environment, and the
15 Federal water infrastructure. The Council shall include
16 the head of each of the following agencies:

- 17 (1) The Bureau of Land Management.
18 (2) The National Park Service.
19 (3) United States Geological Survey.
20 (4) The United States Fish and Wildlife Serv-
21 ice.
22 (5) The Forest Service.
23 (6) The Bureau of Reclamation.
24 (7) The Council on Environmental Quality.
25 (8) The Minerals Management Service.

1 (9) The Office of Surface Mining Reclamation
2 and Enforcement.

3 (b) PLAN.—Not later than one year after the date
4 of the enactment of this Act, the Secretary of the Interior
5 shall submit a plan to Congress describing what the agen-
6 cies listed in subsection (a) shall do both individually and
7 cooperatively to accomplish the following:

8 (1) Working in cooperation with the United
9 States Geological Survey, develop an interagency in-
10 ventory and Geographic Information System data-
11 base of United States ecosystems, water supplies,
12 and water infrastructure vulnerable to climate
13 change.

14 (2) Manage land, water, and ocean resources in
15 a manner that takes into account projected climate
16 change impacts, including but not limited to, pro-
17 longed periods of drought and changing hydrology.

18 (3) Develop consistent protocols to incorporate
19 climate change impacts in land and water manage-
20 ment decisions across land and water resources
21 under the jurisdiction of those agencies listed in sub-
22 section (a).

23 (4) Incorporate the most current, peer-reviewed
24 science on climate change and the economic, social,
25 and ecological impacts of climate change into the de-

1 cision making process of those agencies listed in sub-
2 section (a).

3 (c) COORDINATION.—The activities of the Natural
4 Resources Management Council on Climate Change shall
5 be coordinated with the activities of the United States
6 Global Change Research Program.

7 **Subchapter B—National Policy and Strategy**
8 **for Wildlife**

9 **SEC. 7451. SHORT TITLE.**

10 This subchapter may be cited as the “Global Warm-
11 ing Wildlife Survival Act”.

12 **SEC. 7452. NATIONAL POLICY ON WILDLIFE AND GLOBAL**
13 **WARMING.**

14 It is the policy of the Federal Government, in co-
15 operation with State, tribal, and affected local govern-
16 ments, other concerned public and private organizations,
17 landowners, and citizens to use all practicable means and
18 measures—

19 (1) to assist wildlife populations and their habi-
20 tats in adapting to and surviving the effects of glob-
21 al warming; and

22 (2) to ensure the persistence and resilience of
23 the wildlife of the United States, together with its
24 habitat, as an essential part of our Nation’s culture,
25 landscape, and natural resources.

1 **SEC. 7453. DEFINITIONS.**

2 In this chapter:

3 (1) **ECOLOGICAL PROCESSES.**—The term “eco-
4 logical processes” means the biological, chemical,
5 and physical interactions between the biotic and abi-
6 otic components of ecosystems, including nutrient
7 cycling, pollination, predator-prey relationships, soil
8 formation, gene flow, hydrologic cycling, decomposi-
9 tion, and disturbance regimes such as fire and flood-
10 ing.

11 (2) **HABITAT LINKAGES.**—The term “habitat
12 linkages” means areas that connect wildlife habitat
13 or potential wildlife habitat, and that facilitate the
14 ability of wildlife to move within a landscape in re-
15 sponse to the effects of global warming.

16 (3) **SECRETARY.**—The term “Secretary” means
17 the Secretary of the Interior.

18 (4) **WILDLIFE.**—The term “wildlife” means—

19 (A) any species of wild, free-ranging fauna,
20 including fish and other aquatic species; and

21 (B) any fauna in a captive breeding pro-
22 gram the object of which is to reintroduce indi-
23 viduals of a depleted indigenous species into
24 previously occupied range.

25 (5) **HABITAT.**—The term “habitat” means the
26 physical, chemical, and biological properties that are

1 used by wildlife for growth, reproduction, and sur-
2 vival, including aquatic and terrestrial plant commu-
3 nities, food, water, cover, and space, on a tract of
4 land, in a body of water, or in an area or region.

5 **SEC. 7454. NATIONAL STRATEGY.**

6 (a) REQUIREMENT.—

7 (1) IN GENERAL.—The Secretary shall, within
8 two years after the date of the enactment of this
9 Act, on the basis of the best available science as pro-
10 vided by the science advisory board under section
11 7455, and in cooperation with State fish and wildlife
12 agencies and Indian tribes, promulgate a national
13 strategy for assisting wildlife populations and their
14 habitats in adapting to the impacts of global warm-
15 ing.

16 (2) CONSULTATION AND COMMENT.—In devel-
17 oping the national strategy, the Secretary shall—

18 (A) consult with the Secretary of Agri-
19 culture, the Secretary of Commerce, the Admin-
20 istrator of the Environmental Protection Agen-
21 cy, local governments, conservation organiza-
22 tions, scientists, and other interested stake-
23 holders; and

24 (B) provide opportunity for public com-
25 ment.

1 (b) CONTENTS.—

2 (1) IN GENERAL.—The Secretary shall include
3 in the national strategy prioritized goals and meas-
4 ures to—

5 (A) identify and monitor wildlife popu-
6 lations, including game species, likely to be ad-
7 versely affected by global warming, with par-
8 ticular emphasis on wildlife populations at
9 greatest need for conservation;

10 (B) identify and monitor coastal, marine,
11 terrestrial, and freshwater habitat at greatest
12 risk of being damaged by global warming;

13 (C) assist species in adapting to the im-
14 pacts of global warming;

15 (D) protect, acquire, and restore wildlife
16 habitat to build resilience to global warming;

17 (E) provide habitat linkages and corridors
18 to facilitate wildlife movements in response to
19 global warming;

20 (F) restore and protect ecological processes
21 that sustain wildlife populations vulnerable to
22 global warming; and

23 (G) incorporate consideration of climate
24 change in, and integrate climate change adapta-
25 tion strategies for wildlife and its habitat into,

1 the planning and management of Federal lands
2 administered by the Department of the Interior
3 and lands administered by the Forest Service.

4 (2) COORDINATION WITH OTHER PLANS.—In
5 developing the national strategy, the Secretary shall
6 to the maximum extent practicable—

7 (A) take into consideration research and
8 information in State comprehensive wildlife con-
9 servation plans, the North American Waterfowl
10 Management Plan, the National Fish Habitat
11 Action Plan, and other relevant plans; and

12 (B) coordinate and integrate, to the extent
13 consistent with the policy set forth in section
14 7452, the goals and measures identified in the
15 national strategy with goals and measures iden-
16 tified in such plans.

17 (c) REVISION.—The Secretary shall revise the na-
18 tional strategy not later than five years after its initial
19 promulgation, and not later than every ten years there-
20 after, to reflect new information on the impacts of global
21 warming on wildlife and its habitat and advances in the
22 development of strategies for adapting to or mitigating for
23 such impacts.

24 (d) IMPLEMENTATION.—

1 (1) IMPLEMENTATION ON FEDERAL LAND SYS-
2 TEMS.—To achieve the goals of the national strategy
3 and to implement measures for the conservation of
4 wildlife and its habitat identified in the national
5 strategy—

6 (A) the Secretary of the Interior shall exer-
7 cise the authority of such Secretary under this
8 title and other laws within the Secretary’s juris-
9 diction pertaining to the administration of
10 lands; and

11 (B) the Secretary of Agriculture shall exer-
12 cise the authority of such Secretary under this
13 title and other laws within the Secretary’s juris-
14 diction pertaining to the administration of
15 lands.

16 (2) WILDLIFE CONSERVATION PROGRAMS.—To
17 the maximum extent practicable, the Secretary, the
18 Secretary of Agriculture, and the Secretary of Com-
19 merce shall utilize their authorities under other laws
20 to achieve the goals of the national strategy.

21 (e) LIMITATION ON EFFECT.—Nothing in this sec-
22 tion creates new authority or expands existing authority
23 for the Secretary to regulate the uses of private property.

24 **SEC. 7455. ADVISORY BOARD.**

25 (a) SCIENCE ADVISORY BOARD.—

1 (1) IN GENERAL.—The Secretary shall establish
2 and appoint the members of a science advisory board
3 comprised of not less than 10 and not more than 20
4 members recommended by the President of the Na-
5 tional Academy of Sciences with expertise in wildlife
6 biology, ecology, climate change and other relevant
7 disciplines. The director of the National Global
8 Warming and Wildlife Science Center established
9 under subsection (b) shall be an ex officio member
10 of the science advisory board.

11 (2) FUNCTIONS.—The science advisory board
12 shall—

13 (A) provide scientific and technical advice
14 and recommendations to the Secretary on the
15 impacts of global warming on wildlife and its
16 habitat, areas of habitat of particular impor-
17 tance for the conservation of wildlife popu-
18 lations affected by global warming, and strate-
19 gies and mechanisms to assist wildlife popu-
20 lations and their habitats in adapting to the im-
21 pacts of global warming in the management of
22 Federal lands and in other Federal programs
23 for wildlife conservation;

24 (B) advise the National Global Warming
25 and Wildlife Science Center established under

1 subsection (b) and review the quality of the re-
2 search programs of the Center; and

3 (C) advise the Secretary regarding the best
4 science available for purposes of developing and
5 revising the national strategy under section
6 7454.

7 (3) PUBLIC AVAILABILITY.—The advice and
8 recommendations of the science advisory board shall
9 be available to the public.

10 (b) NATIONAL GLOBAL WARMING AND WILDLIFE
11 SCIENCE CENTER.—

12 (1) IN GENERAL.—The Secretary shall establish
13 the National Global Warming and Wildlife Science
14 Center within the United States Geological Survey.

15 (2) FUNCTIONS.—The National Global Warm-
16 ing and Wildlife Science Center shall—

17 (A) conduct scientific research on national
18 issues related to the impacts of global warming
19 on wildlife and its habitat and mechanisms for
20 adaptation to, mitigation of, or prevention of
21 such impacts;

22 (B) consult with and advise Federal land
23 management agencies and Federal wildlife
24 agencies regarding the impacts of global warm-
25 ing on wildlife and its habitat and mechanisms

1 for adaptation to or mitigation of such impacts,
2 and the incorporation of information regarding
3 such impacts and the adoption of mechanisms
4 for adaptation or mitigation of such impacts in
5 the management and planning for Federal
6 lands and in the administration of Federal wild-
7 life programs; and

8 (C) consult, and to the maximum extent
9 practicable, collaborate with State and local
10 agencies, universities, and other public and pri-
11 vate entities regarding their research, moni-
12 toring, and other efforts to address the impacts
13 of global warming on wildlife and its habitat.

14 (3) INTEGRATION WITH OTHER FEDERAL AC-
15 TIVITIES.—The Secretary, the Secretary of Agri-
16 culture, and the Secretary of Commerce shall ensure
17 that research and other activities carried out pursu-
18 ant to this section are integrated with climate
19 change program research and activities carried out
20 pursuant to other Federal law.

21 (c) DETECTION OF CHANGES.—The Secretary, the
22 Secretary of Agriculture, and the Secretary of Commerce
23 shall each exercise authorities under other laws to carry
24 out programs to detect changes in wildlife abundance, dis-

1 tribution, and behavior related to global warming, includ-
2 ing—

3 (1) conducting species inventories on Federal
4 lands and in marine areas within the exclusive eco-
5 nomic zone of the United States; and

6 (2) establishing and implementing robust, co-
7 ordinated monitoring programs.

8 **SEC. 7456. AUTHORIZATION OF APPROPRIATIONS.**

9 (a) IMPLEMENTATION OF NATIONAL STRATEGY.—Of
10 the amounts appropriated to carry out this subchapter for
11 each fiscal year—

12 (1) 45 percent are authorized to be made avail-
13 able to Federal agencies to develop and implement
14 the national strategy promulgated under section
15 7454 in the administration of the Federal land sys-
16 tems, of which—

17 (A) 35 percent shall be allocated to the
18 Department of the Interior to—

19 (i) operate the National Global Warm-
20 ing and Wildlife Science Center established
21 under section 7455; and

22 (ii) carry out the policy set forth in
23 section 7452 and implement the national
24 strategy in the administration of the Na-
25 tional Park System the National Wildlife

1 Refuge System, and on the Bureau of
2 Land Management's public lands; and

3 (B) 10 percent shall be allocated to the
4 Department of Agriculture to carry out the pol-
5 icy set forth in section 7452 and implement the
6 national strategy in the administration of the
7 National Forest System;

8 (2) 25 percent are authorized to be made avail-
9 able to Federal agencies to carry out the policy set
10 forth in section 7452 and to implement the national
11 strategy through fish and wildlife programs, other
12 than for the operation and maintenance of Federal
13 lands, of which—

14 (A) 10 percent shall be allocated to the
15 Department of the Interior to fund endangered
16 species, migratory bird, and other fish and wild-
17 life programs administered by the United
18 States Fish and Wildlife Service, other than op-
19 erations and maintenance of the national wild-
20 life refuges; and

21 (B) 15 percent shall be allocated to the
22 Department of the Interior for implementation
23 of cooperative grant programs benefitting wild-
24 life including the Cooperative Endangered Spe-
25 cies Fund, Private Stewardship Grants, the

1 North American Wetlands Conservation Act,
2 the Multinational Species Conservation Fund,
3 the Neotropical Migratory Bird Conservation
4 Fund, and the National Fish Habitat Action
5 Plan, and used for activities that assist wildlife
6 and its habitat in adapting to the impacts of
7 global warming; and

8 (3) 30 percent are authorized to be made avail-
9 able for grants to States and Indian tribes through
10 the State and tribal wildlife grants program author-
11 ized under section 7461, to—

12 (A) carry out activities that assist wildlife
13 and its habitat in adapting to the impacts of
14 global warming in accordance with State com-
15 prehensive wildlife conservation plans developed
16 and approved under that program; and

17 (B) revise or supplement existing State
18 comprehensive wildlife conservation plans as
19 necessary to include specific strategies for as-
20 sisting wildlife and its habitat in adapting to
21 the impacts of global warming.

22 (b) AVAILABILITY.—

23 (1) IN GENERAL.—Funding is authorized to be
24 made available to States and Indian tribes pursuant
25 to this section subject to paragraphs (2) and (3).

1 (2) INITIAL 5-YEAR PERIOD.—During the 5-
2 year period beginning on the effective date of this
3 title, a State shall not be eligible to receive such
4 funding unless the head of the State’s wildlife agen-
5 cy has—

6 (A) approved, and provided to the Sec-
7 retary, an explicit strategy to assist wildlife
8 populations in adapting to the impacts of global
9 warming; and

10 (B) incorporated such strategy as a supple-
11 ment to the State’s comprehensive wildlife con-
12 servaion plan.

13 (3) SUBSEQUENT PERIOD.—After such 5-year
14 period, a State shall not be eligible to receive such
15 funding unless the State has submitted to the Sec-
16 retary, and the Secretary has approved, a revision to
17 its comprehensive wildlife conservation plan that—

18 (A) describes the impacts of global warm-
19 ing on the diversity and health of the State’s
20 wildlife populations and their habitat;

21 (B) describes and prioritizes proposed con-
22 servaion actions to assist wildlife populations
23 in adapting to such impacts;

1 (C) establishes programs for monitoring
 2 the impacts of global warming on wildlife popu-
 3 lations and their habitats; and

4 (D) establishes methods for assessing the
 5 effectiveness of conservation actions taken to
 6 assist wildlife populations in adapting to such
 7 impacts and for adapting such actions to re-
 8 spond appropriately to new information or
 9 changing conditions.

10 (c) INTENT OF CONGRESS.—It is the intent of Con-
 11 gress that funding provided to Federal agencies and
 12 States pursuant to this subchapter supplement, and not
 13 replace, existing sources of funding for wildlife conserva-
 14 tion.

15 **Subchapter C—State and Tribal Wildlife**
 16 **Grants Program**

17 **SEC. 7461. STATE AND TRIBAL WILDLIFE GRANTS PRO-**
 18 **GRAM.**

19 (a) AUTHORIZATION OF PROGRAM.—There is author-
 20 ized to be established a State and Tribal Wildlife Grants
 21 Program to be administered by the Secretary of the Inte-
 22 rior and to provide wildlife conservation grants to States
 23 and to the District of Columbia, Puerto Rico, Guam, the
 24 United States Virgin Islands, the Northern Mariana Is-
 25 lands, American Samoa, and federally recognized Indian

1 tribes for the planning, development, and implementation
2 of programs for the benefit of wildlife and their habitat,
3 including species that are not hunted or fished.

4 (b) ALLOCATION OF FUNDS.—

5 (1) IN GENERAL.—Of the amounts made avail-
6 able to carry out this section for each fiscal year—

7 (A) 10 percent shall be for a competitive
8 grant program for Indian tribes that are not
9 subject to the remaining provisions of this sec-
10 tion;

11 (B) of the amounts remaining after the ap-
12 plication of subparagraph (A), and after the de-
13 duction of the Secretary's administrative ex-
14 penses to carry out this section—

15 (i) not more than one-half of 1 per-
16 cent shall be allocated to each of the Dis-
17 trict of Columbia and to the Common
18 wealth of Puerto Rico; and

19 (ii) not more than one-fourth of 1 per-
20 cent shall be allocated to each of Guam,
21 American Samoa, the United States Virgin
22 Islands, and the Commonwealth of the
23 Northern Mariana Islands; and

1 (C) of the amount remaining after the ap-
2 plication of subparagraphs (B) and (C), the sec-
3 retary shall apportion among the States—

4 (i) one-third based on the ratio that
5 the land area of each State bears to the
6 total land area of all States; and

7 (ii) two-thirds based on the ratio that
8 the population of each State bears to the
9 total population of all States.

10 (2) ADJUSTMENTS.—The amounts apportioned
11 under subparagraph (C) of paragraph (1) for a fis-
12 cal year shall be adjusted equitably so that no State
13 is apportioned under such subparagraph a sum that
14 is—

15 (A) less than 1 percent of the amount
16 available for apportionment under that subpara-
17 graph that fiscal year; or

18 (B) more than 5 percent of such amount.

19 (c) COST SHARING.—

20 (1) PLAN DEVELOPMENT GRANTS.—The Fed-
21 eral share of the costs of developing or revising a
22 comprehensive wildlife conservation plan shall not
23 exceed 75 percent of the total costs of developing or
24 revising such plan.

1 (2) PLAN IMPLEMENTATION GRANTS.—The
2 Federal share of the costs of implementing an activ-
3 ity in an approved comprehensive wildlife conserva-
4 tion plan carried out with a grant under this section
5 shall not exceed 50 percent of the total costs of such
6 activities.

7 (3) PROHIBITION ON USE OF FEDERAL
8 FUNDS.—The non-Federal share of costs of an activ-
9 ity carried out under this section shall not be paid
10 with amounts derived from any Federal grant pro-
11 gram.

12 (d) REQUIREMENT FOR PLAN.—

13 (1) IN GENERAL.—No State, territory, or other
14 jurisdiction shall be eligible for a grant under this
15 section unless it submits to the Secretary a com-
16 prehensive wildlife conservation plan that—

17 (A) complies with paragraph (2); and

18 (B) considers the broad range of the State,
19 territory, or other jurisdiction’s wildlife and as-
20 sociated habitats, with appropriate priority
21 placed on those species with the greatest con-
22 servation need and taking into consideration the
23 relative level of funding available for the con-
24 servation of those species.

1 (2) CONTENTS.—The comprehensive wildlife
2 conservation plan must contain—

3 (A) information on the distribution and
4 abundance of species of wildlife, including low
5 and declining populations as the State, terri-
6 tory, or other jurisdiction’s fish and wildlife
7 agency considers appropriate, that are indic-
8 ative of the diversity and health of the jurisdic-
9 tion’s wildlife;

10 (B) the location and relative condition of
11 key habitats and community types essential to
12 conservation of species identified in subpara-
13 graph (A);

14 (C) descriptions of problems which may
15 adversely affect species identified in subpara-
16 graph (A) or their habitats, and priority re-
17 search and survey efforts needed to identify fac-
18 tors that may assist in restoration and im-
19 proved conservation of these species and habi-
20 tats;

21 (D) descriptions of conservation actions
22 proposed to conserve the identified species and
23 habitats and priorities for implementing such
24 actions;

1 (E) proposed plans for monitoring species
2 identified in subparagraph (A) and their habi-
3 tats, for monitoring the effectiveness of the con-
4 servation actions proposed in subparagraph
5 (D), and for adapting these conservation ac-
6 tions to respond appropriately to new informa-
7 tion or changing conditions;

8 (F) descriptions of procedures to review
9 the comprehensive wildlife conservation plan at
10 intervals not to exceed ten years;

11 (G) plans for coordinating the develop-
12 ment, implementation, review, and revision of
13 the comprehensive wildlife conservation plan
14 with Federal, State, and local agencies and In-
15 dian tribes that manage significant land and
16 water areas within the jurisdiction or admin-
17 ister programs that significantly affect the con-
18 servation of identified species and habitats; and

19 (H) provisions for broad public participa-
20 tion as an essential element of the development,
21 revision, and implementation of the comprehen-
22 sive wildlife conservation plan.

23 (e) SAVINGS CLAUSE.—State comprehensive wildlife
24 strategies approved by the Secretary pursuant to previous
25 congressional authorizations and appropriations Acts shall

1 remain in effect until such strategies expire or are revised
 2 in accordance with their terms. Except as specified in sec-
 3 tion 7456(b) with respect to funds made available under
 4 such section, conservation and education activities con-
 5 ducted or proposed to be conducted pursuant to such pre-
 6 viously approved strategies shall remain authorized.

7 (f) AUTHORIZATION OF APPROPRIATIONS.—There
 8 are authorized to be appropriated such sums as are nec-
 9 essary to carry out this section.

10 **CHAPTER 5—OCEAN PROGRAMS**

11 **SEC. 7471. OCEAN POLICY, GLOBAL WARMING, AND ACIDI-** 12 **FICATION PROGRAM.**

13 (a) DEVELOPMENT AND IMPLEMENTATION.—

14 (1) IN GENERAL.—The Secretary of Commerce,
 15 shall, within two years after the date of enactment
 16 of this Act, and on the basis of the best available
 17 science, develop and implement a national strategy
 18 using existing authorities and the authority provided
 19 in this section to support coastal State and Federal
 20 agency efforts to—

21 (A) predict, plan for, and mitigate the im-
 22 pacts on ocean and coastal ecosystems from
 23 global warming, relative sea level rise and ocean
 24 acidification; and

1 (B) ensure the recovery, resiliency, and
2 health of ocean and coastal ecosystems.

3 (2) CONSULTATION AND COMMENT.—Before
4 and during the development of the national strategy,
5 the Secretary shall—

6 (A) consult with the Secretary of the Inte-
7 rior, the Administrator of the Environmental
8 Protection Agency, the Regional Fishery Man-
9 agement Councils, coastal States, Indian tribes,
10 local governments, conservation organizations,
11 scientists, and other interested stakeholders;
12 and

13 (B) provide opportunities for public notice
14 and comment.

15 (b) CONTENTS.—

16 (1) IN GENERAL.—The Secretary shall include
17 in the national strategy prioritized goals and meas-
18 ures to—

19 (A) incorporate climate change adaptation
20 strategies into the planning and management of
21 ocean and coastal programs and resources ad-
22 ministered by the Department of Commerce;

23 (B) support restoration, protection, and
24 enhancement of natural processes that minimize

1 the impacts of relative sea level rise, global
2 warming, and ocean acidification;

3 (C) minimize the impacts of global warm-
4 ing and ocean acidification on marine species
5 and their habitats;

6 (D) identify, protect, and restore ocean
7 and coastal habitats needed to build healthy
8 and resilient ecosystems;

9 (E) support the development of climate
10 change resiliency plans under the Coastal Zone
11 Management Act of 1972 (16 U.S.C. 1451 et
12 seq.);

13 (F) provide technical assistance and train-
14 ing to other Federal agencies, States, local com-
15 munities, universities, and other stakeholders;
16 and

17 (G) identify additional research that is
18 needed to better anticipate and plan for the im-
19 pacts of global warming and ocean acidification
20 on ocean and coastal resources.

21 (2) COORDINATION WITH OTHER PLANS.—In
22 developing the national strategy, the Secretary
23 shall—

24 (A) take into consideration research and
25 information available in Federal, regional, and

1 State management and restoration plans and
2 any other relevant reports and information; and

3 (B) encourage and take into account State
4 and regional plans for protecting and restoring
5 the health and resilience of ocean and coastal
6 ecosystems.

7 (c) REVISION.—The Secretary shall revise the na-
8 tional strategy not later than 5 years after its promulga-
9 tion, and not later than every 10 years thereafter, to re-
10 flect new information on the impacts of global warming,
11 relative sea level rise, and acidification on ocean and coast-
12 al ecosystems and their resources and advances in the de-
13 velopment of strategies for adapting to or mitigating for
14 such impacts.

15 (d) SCIENCE ADVISORY BOARD.—

16 (1) CONSULTATION.—The Secretary shall con-
17 sult with the National Oceanic and Atmospheric Ad-
18 ministration's Science Advisory Board in the devel-
19 opment and implementation of the strategy.

20 (2) REVIEW INFORMATION.—The Science Advi-
21 sory Board shall periodically—

22 (A) review new information on the impacts
23 of global warming, relative sea level rise, and
24 acidification on ocean and coastal ecosystems
25 and their resources and advances in the devel-

1 opment of strategies for adapting to or miti-
2 gating for such impacts; and

3 (B) provide that information to the Sec-
4 retary.

5 (e) AUTHORIZATION OF APPROPRIATIONS.—There
6 are authorized to be appropriated such sums as may be
7 necessary to implement this section. Amounts appro-
8 priated shall be used for the exclusive purpose of carrying
9 out the activities specified in this section.

10 (f) REPORT TO CONGRESS.—Copies of the strategy
11 and implementation plan and any updates shall be pro-
12 vided to Congress.

13 **SEC. 7472. PLANNING FOR CLIMATE CHANGE IN THE**
14 **COASTAL ZONE.**

15 (a) IN GENERAL.—The Coastal Zone Management
16 Act of 1972 (16 U.S.C. 1451 et seq.) is amended by add-
17 ing at the end the following:

18 “CLIMATE CHANGE RESILIENCY PLANNING

19 “SEC. 320. (a) IN GENERAL.—The Secretary shall
20 establish consistent with the national policies set forth in
21 section 303 a coastal climate change resiliency planning
22 and response program to—

23 “(1) provide assistance to coastal states to vol-
24 untarily develop coastal climate change resiliency
25 plans pursuant to approved management programs
26 approved under section 306, to minimize contribu-

1 tions to climate change and to prepare for and re-
2 duce the negative consequences that may result from
3 climate change in the coastal zone; and

4 “(2) provide financial and technical assistance
5 and training to enable coastal states to implement
6 plans developed pursuant to this section through
7 coastal states’ enforceable policies.

8 “(b) GUIDELINES.—Within 180 days after the date
9 of enactment of this section, the Secretary, in consultation
10 with the coastal states, shall issue guidelines for the imple-
11 mentation of the grant program established under sub-
12 section (c).

13 “(c) CLIMATE CHANGE RESILIENCY PLANNING
14 GRANTS.—

15 “(1) IN GENERAL.—The Secretary, subject to
16 the availability of appropriations, may make a grant
17 to any coastal state for the purpose of developing cli-
18 mate change resiliency plans pursuant to guidelines
19 issued by the Secretary under subsection (b).

20 “(2) PLAN CONTENT.—A plan developed with a
21 grant under this section shall include the following:

22 “(A) Identification of public facilities and
23 public services, coastal resources of national
24 significance, coastal waters, energy facilities, or
25 other water uses located in the coastal zone

1 that are likely to be impacted by climate
2 change.

3 “(B) Adaptive management strategies for
4 land use to respond or adapt to changing envi-
5 ronmental conditions, including strategies to
6 protect biodiversity and establish habitat buffer
7 zones, migration corridors, and climate refugia.

8 “(C) Requirements to initiate and main-
9 tain long-term monitoring of environmental
10 change to assess coastal zone resiliency and to
11 adjust when necessary adaptive management
12 strategies and new planning guidelines to attain
13 the policies under section 303.

14 “(3) STATE HAZARD MITIGATION PLANS.—
15 Plans developed with a grant under this section shall
16 be consistent with State hazard mitigation plans de-
17 veloped under State or Federal law.

18 “(4) ALLOCATION.—Grants under this section
19 shall be available only to coastal states with manage-
20 ment programs approved by the Secretary under sec-
21 tion 306 and shall be allocated among such coastal
22 states in a manner consistent with regulations pro-
23 mulgated pursuant to section 306(c).

24 “(5) PRIORITY.—In the awarding of grants
25 under this subsection the Secretary may give priority

1 to any coastal state that has received grant funding
2 to develop program changes pursuant to paragraphs
3 (1), (2), (3), (5), (6), (7), and (8) of section 309(a).

4 “(6) TECHNICAL ASSISTANCE.—The Secretary
5 may provide technical assistance to a coastal state
6 consistent with section 310 to ensure the timely de-
7 velopment of plans supported by grants awarded
8 under this subsection.

9 “(7) FEDERAL APPROVAL.—In order to be eligi-
10 ble for a grant under subsection (d), a coastal state
11 must have its plan developed under this section ap-
12 proved by the Secretary.

13 “(d) COASTAL RESILIENCY PROJECT GRANTS.—

14 “(1) IN GENERAL.—The Secretary, subject to
15 the availability of appropriations, may make grants
16 to any coastal state that has a climate change resil-
17 iency plan approved under subsection (c)(7), in
18 order to support projects that implement strategies
19 contained within such plans.

20 “(2) PROGRAM REQUIREMENTS.—The Sec-
21 retary within 90 days after approval of the first plan
22 approved under subsection (c)(7), shall publish in
23 the Federal Register requirements regarding appli-
24 cations, allocations, eligible activities, and all terms
25 and conditions for grants awarded under this sub-

1 section. No less than 30 percent of the funds appro-
2 priated in any fiscal year for grants under this sub-
3 section shall be awarded through a merit-based com-
4 petitive process.

5 “(3) ELIGIBLE ACTIVITIES.—The Secretary
6 may award grants to coastal states to implement
7 projects in the coastal zone to address stress factors
8 in order to improve coastal climate change resiliency,
9 including the following:

10 “(A) Activities to address physical disturb-
11 ances within the coastal zone, especially activi-
12 ties related to public facilities and public serv-
13 ices, tourism, sedimentation, and other factors
14 negatively impacting coastal waters, and fish-
15 eries-associated habitat destruction or alter-
16 ation.

17 “(B) Monitoring, control, or eradication of
18 disease organisms and invasive species.

19 “(C) Activities to address the loss, deg-
20 radation or fragmentation of wildlife habitat
21 through projects to establish marine and terres-
22 trial habitat buffers, wildlife refugia or net-
23 works thereof, and preservation of migratory
24 wildlife corridors and other transition zones.

1 “(D) Implementation of projects to reduce,
2 mitigate, or otherwise address likely impacts
3 caused by natural hazards in the coastal zone,
4 including sea level rise, coastal inundation,
5 coastal erosion and subsidence, severe weather
6 events such as cyclonic storms, tsunamis and
7 other seismic threats, and fluctuating Great
8 Lakes water levels.

9 “(E) Provide technical training and assist-
10 ance to local coastal policy makers to increase
11 awareness of science, management, and tech-
12 nology information related to climate change
13 and adaptation strategies.”.

14 (b) AUTHORIZATION OF APPROPRIATIONS.—Section
15 318(a) of the Coastal Zone Management Act of 1972 (16
16 U.S.C. 1464) is further amended by adding at the end
17 the following:

18 “(4) for grants under section 320(c) and (d),
19 such sums as are necessary.”.

20 (c) INTENT OF CONGRESS.—Nothing in this section
21 shall be construed to require any coastal state to amend
22 or modify its approved management program pursuant to
23 section 306(e) of the Coastal Zone Management Act of
24 1972 (16 U.S.C. 1455(e)), or to extend the enforceable
25 policies of a coastal state beyond the coastal zone as iden-

1 tified in the coastal state’s approved management pro-
2 gram.

3 **SEC. 7473. ENHANCING CLIMATE CHANGE PREDICTIONS.**

4 (a) **SHORT TITLE.**—This section may be cited as the
5 “National Integrated Coastal and Ocean Observation Act
6 of 2007”.

7 (b) **PURPOSES.**—The purposes of this section are the
8 following:

9 (1) Establish a National Integrated Coastal and
10 Ocean Observation System comprised of Federal and
11 non-Federal components, coordinated at the national
12 level by the National Ocean Research Leadership
13 Council and at the regional level by a network of Re-
14 gional Information Coordination Entities, that in-
15 cludes in situ, remote, and other coastal and ocean
16 observations, technologies, and data management
17 and communication systems, to gather specific coast-
18 al and ocean data variables and to ensure the timely
19 dissemination and availability of usable observation
20 data—

21 (A) to support national defense, marine
22 commerce, energy production, scientific re-
23 search, ecosystem-based marine and coastal re-
24 source management, weather and marine fore-

1 casting, public safety and public outreach train-
2 ing and education; and

3 (B) to promote greater public awareness
4 and stewardship of the Nation's ocean, coastal,
5 and Great Lakes resources and the general
6 public welfare.

7 (2) Improve the Nation's capability to measure,
8 track, explain, and predict events related directly
9 and indirectly to weather and climate change, nat-
10 ural climate variability, and interactions between the
11 oceanic and atmospheric environments, including the
12 Great Lakes.

13 (3) Authorize activities to promote basic and
14 applied research to develop, test, and deploy innova-
15 tions and improvements in coastal and ocean obser-
16 vation technologies, modeling systems, and other sci-
17 entific and technological capabilities to improve our
18 conceptual understanding of weather and climate,
19 ocean atmosphere dynamics, global climate change,
20 and physical, chemical, and biological dynamics of
21 the ocean and coastal and Great Lakes environ-
22 ments.

23 (c) DEFINITIONS.—In this section:

24 (1) COUNCIL.—The term “Council” means the
25 National Ocean Research Leadership Council re-

1 ferred to in section 7902 of title 10, United States
2 Code.

3 (2) ADMINISTRATOR.—The term “Adminis-
4 trator” means the Administrator of the National
5 Oceanic and Atmospheric Administration.

6 (3) FEDERAL ASSETS.—The term “Federal as-
7 sets” means all relevant nonclassified civilian coastal
8 and ocean observations, technologies, and related
9 modeling, research, data management, basic and ap-
10 plied technology research and development, and pub-
11 lic education and outreach programs, that are man-
12 aged by member agencies of the Council.

13 (4) INTERAGENCY WORKING GROUP.—The term
14 “Interagency Working Group” means the Inter-
15 agency Working Group on Ocean Observations as es-
16 tablished by the U.S. Ocean Policy Committee Sub-
17 committee on Ocean Science and Technology pursu-
18 ant to Executive Order 13366 signed December 17,
19 2004.

20 (5) NON-FEDERAL ASSETS.—The term “non-
21 Federal assets” means all relevant coastal and ocean
22 observations, technologies, related basic and applied
23 technology research and development, and public
24 education and outreach programs that are integrated
25 into the System and are managed through States,

1 regional organizations, universities, nongovernmental
2 organizations, or the private sector.

3 (6) REGIONAL INFORMATION COORDINATION
4 ENTITIES.—

5 (A) IN GENERAL.—The term “Regional In-
6 formation Coordination Entity”, subject to sub-
7 paragraphs (B) and (C), means an organiza-
8 tional body that is certified or established by
9 the lead Federal agency designated in sub-
10 section (d)(3)(C)(iii) and coordinating State,
11 Federal, local, and private interests at a re-
12 gional level with the responsibility of engaging
13 the private and public sectors in designing, op-
14 erating, and improving regional coastal and
15 ocean observing systems in order to ensure the
16 provision of data and information that meet the
17 needs of user groups from the respective re-
18 gions.

19 (B) INCLUDED ASSOCIATIONS.—Such term
20 includes Regional Associations as described by
21 the System Plan.

22 (C) LIMITATION.—Nothing in this section
23 shall be construed to invalidate existing certifi-
24 cations, contracts, or agreements between Re-

1 gional Associations and other elements of the
2 System.

3 (7) SYSTEM.—The term “System” means the
4 National Integrated Coastal and Ocean Observation
5 System established under subsection (d).

6 (8) SYSTEM PLAN.—The term “System Plan”
7 means the plan contained in the document entitled
8 “Ocean.US Publication No. 9, The First Integrated
9 Ocean Observing System (IOOS) Development
10 Plan”.

11 (d) NATIONAL INTEGRATED COASTAL AND OCEAN
12 OBSERVING SYSTEM.—

13 (1) ESTABLISHMENT.—The President, acting
14 through the Council, shall establish a National Inte-
15 grated Coastal and Ocean Observation System to
16 fulfill the purposes set forth in subsection (b) and
17 the System plan and to fulfill the Nation’s inter-
18 national obligations to contribute to the global earth
19 observation system of systems and the global ocean
20 observing system.

21 (2) SUPPORT OF PURPOSES.—The head of each
22 agency that is a member of the Interagency Working
23 Group shall support the purposes of this section.

24 (3) AVAILABILITY OF DATA.—The head of each
25 Federal agency that has administrative jurisdiction

1 over a Federal asset shall make available data that
2 are produced by that asset and that are not other-
3 wise restricted for integration, management, and dis-
4 semination by the System.

5 (4) ENHANCING ADMINISTRATION AND MAN-
6 AGEMENT.—The head of each Federal agency that
7 has administrative jurisdiction over a Federal asset
8 may take appropriate actions to enhance internal
9 agency administration and management to better
10 support, integrate, finance, and utilize observation
11 data, products, and services developed under this
12 section to further its own agency mission and re-
13 sponsibilities.

14 (5) PARTICIPATION IN REGIONAL INFORMATION
15 COORDINATION ENTITY.—The head of each Federal
16 agency that has administrative jurisdiction over a
17 Federal asset may participate in regional informa-
18 tion coordination entity activities.

19 (6) NON-FEDERAL ASSETS.—Non-Federal as-
20 sets shall be coordinated by the Interagency Work-
21 ing Group or by Regional Information Coordination
22 Entities.

23 (e) POLICY OVERSIGHT, ADMINISTRATION, AND RE-
24 GIONAL COORDINATION.—

1 (1) NATIONAL OCEAN RESEARCH LEADERSHIP
2 COUNCIL.—The National Ocean Research Leader-
3 ship Council shall be responsible for establishing
4 broad coordination and long-term operations plans,
5 policies, protocols, and standards for the System
6 consistent with the policies, goals, and objectives
7 contained in the System Plan, and coordination of
8 the System with other earth observing activities.

9 (2) INTERAGENCY WORKING GROUP.—The
10 Interagency Working Group shall, with respect to
11 the System, be responsible for—

12 (A) implementation of operations plans
13 and policies developed by the Council;

14 (B) development of and transmittal to
15 Congress at the time of submission of the
16 President’s annual budget request an annual
17 coordinated, comprehensive System budget;

18 (C) identification of gaps in observation
19 coverage or needs for capital improvements of
20 both Federal assets and non-Federal assets;

21 (D) establishment of data management
22 and communication protocols and standards;

23 (E) establishment of required observation
24 data variables;

1 (F) development of certification standards
2 for all non-Federal assets or Regional Informa-
3 tion Coordination Entities to be eligible for in-
4 tegration into the System;

5 (G) subject to the availability of appropria-
6 tions, establish through one or more partici-
7 pating Federal agencies, in consultation with
8 the System Advisory Committee established
9 under paragraph (5), a competitive matching
10 grant or other program to promote research
11 and development of innovative observation tech-
12 nologies including testing and field trials; and

13 (H) periodically review and recommend to
14 the Council revisions to the System Plan.

15 (3) LEAD FEDERAL AGENCY.—The Adminis-
16 trator shall function as the lead Federal agency for
17 the System. The Administrator may establish an
18 Interagency Program Coordinating Office to facili-
19 tate the Administrator’s responsibilities as the lead
20 Federal agency for System oversight and manage-
21 ment. The Administrator shall—

22 (A) implement policies, protocols, and
23 standards established by the Council and dele-
24 gated by the Interagency Working Group;

1 (B) promulgate regulations to integrate
2 the participation of non-Federal assets into the
3 System and enter into and oversee contracts
4 and agreements with Regional Information Co-
5 ordination Entities to effect this purpose;

6 (C) implement a competitive funding proc-
7 ess for the purpose of assigning contracts and
8 agreements to Regional Information Coordina-
9 tion Entities;

10 (D) certify or establish Regional Informa-
11 tion Coordination Entities to coordinate State,
12 Federal, local, and private interests at a re-
13 gional level with the responsibility of engaging
14 private and public sectors in designing, oper-
15 ating, and improving regional coastal and ocean
16 observing systems in order to ensure the provi-
17 sion of data and information that meet the
18 needs of user groups from the respective re-
19 gions;

20 (E) formulate a process by which gaps in
21 observation coverage or needs for capital im-
22 provements of Federal assets and non-Federal
23 assets of the System can be identified by the
24 Regional Information Coordination Entities, the
25 Administrator, or other members of the System

1 and transmitted to the Interagency Working
2 Group;

3 (F) be responsible for the coordination,
4 storage, management, and dissemination of ob-
5 servation data gathered through the System to
6 all end-user communities;

7 (G) implement a program of public edu-
8 cation and outreach to improve public aware-
9 ness of global climate change and effects on the
10 ocean, coastal, and Great Lakes environment;
11 and

12 (H) report annually to the Council through
13 the Interagency Working Group on the accom-
14 plishments, operational needs, and performance
15 of the System to achieve the purposes of this
16 title and the System Plan.

17 (4) REGIONAL INFORMATION COORDINATION
18 ENTITY.—To be certified or established under para-
19 graph (3)(D), a Regional Information Coordination
20 Entity must be certified or established by contract
21 or agreement by the Administrator, and must agree
22 to—

23 (A) gather required System observation
24 data and other requirements specified under
25 this section and the System plan;

1 (B) identify gaps in observation coverage
2 or needs for capital improvements of Federal
3 assets and non-Federal assets of the System,
4 and transmit such information to the Inter-
5 agency Working Group via the Administrator;

6 (C) demonstrate an organizational struc-
7 ture and strategic operational plan to ensure
8 the efficient and effective administration of pro-
9 grams and assets to support daily data observa-
10 tions for integration into the System;

11 (D) comply with all financial oversight re-
12 quirements established by the Administrator,
13 including requirements relating to audits; and

14 (E) demonstrate a capability to work with
15 other governmental and nongovernmental enti-
16 ties at all levels to identify and provide informa-
17 tion products of the System for multiple users
18 within the service area of the Regional Informa-
19 tion Coordination Entities and otherwise.

20 (5) SYSTEM ADVISORY COMMITTEE.—

21 (A) IN GENERAL.—The Administrator
22 shall establish a System Advisory Committee,
23 which shall provide advice as may be requested
24 by the Administrator or the Interagency Work-
25 ing Group.

1 (B) PURPOSE.—The purpose of the Sys-
2 tem Advisory Committee is to advise the Ad-
3 ministrator and the Interagency Working Group
4 on—

5 (i) administration, operation, manage-
6 ment, and maintenance of the System, in-
7 cluding integration of Federal and non-
8 Federal assets and data management and
9 communication aspects of the System, and
10 fulfillment of the purposes specified under
11 subsection (b);

12 (ii) expansion and periodic moderniza-
13 tion and upgrade of technology components
14 of the System;

15 (iii) identification of end-user commu-
16 nities, their needs for information provided
17 by the System, and the System's effective-
18 ness in disseminating information to end-
19 user communities and the general public;
20 and

21 (iv) any other purpose identified by
22 the Administrator or the Interagency
23 Working Group.

24 (C) MEMBERS.—

1 (i) IN GENERAL.—The System Advisory
2 Committee shall be composed of mem-
3 bers appointed by the Administrator. Mem-
4 bers shall be qualified by education, train-
5 ing, and experience to evaluate scientific
6 and technical information related to the
7 design, operation, maintenance, or use of
8 the System, or use of data products pro-
9 vided through the System.

10 (ii) TERMS OF SERVICE.—Members
11 shall be appointed for 3-year terms, renew-
12 able once. A vacancy appointment shall be
13 for the remainder of the unexpired term of
14 the vacancy, and an individual so ap-
15 pointed may subsequently be appointed for
16 2 full 3-year terms if the remainder of the
17 unexpired term is less than one year.

18 (iii) CHAIRPERSON.—The Adminis-
19 trator shall designate a chairperson from
20 among the members of the System Advisory
21 Committee.

22 (iv) APPOINTMENT.—Members of the
23 System Advisory Committee shall be ap-
24 pointed as special Government employees

1 for purposes of section 202(a) of title 18,
2 United States Code.

3 (D) ADMINISTRATIVE PROVISIONS.—

4 (i) REPORTING.—The System Advi-
5 sory Committee shall report to the Admin-
6 istrator and the Interagency Working
7 Group, as appropriate.

8 (ii) ADMINISTRATIVE SUPPORT.—The
9 Administrator shall provide administrative
10 support to the System Advisory Com-
11 mittee.

12 (iii) MEETINGS.—The System Advi-
13 sory Committee shall meet at least once
14 each year, and at other times at the call of
15 the Administrator, the Interagency Work-
16 ing Group, or the chairperson.

17 (iv) COMPENSATION AND EX-
18 PENSES.—Members of the System Advi-
19 sory Committee shall not be compensated
20 for service on that Committee, but may be
21 allowed travel expenses, including per diem
22 in lieu of subsistence, in accordance with
23 subchapter I of chapter 57 of title 5,
24 United States Code.

1 (v) EXPIRATION.—Section 14 of the
2 Federal Advisory Committee Act (5 U.S.C.
3 App.) shall not apply to the System Advi-
4 sory Committee.

5 (6) CIVIL LIABILITY.—For purposes of deter-
6 mining liability arising from the dissemination and
7 use of observation data gathered pursuant to this
8 section, any non-Federal asset or Regional Informa-
9 tion Coordination Entity that is certified under
10 paragraph (3)(D) and that is participating in the
11 System shall be considered to be part of the Na-
12 tional Oceanic and Atmospheric Administration. Any
13 employee of such a non-Federal asset or Regional
14 Information Coordination Entity, while operating
15 within the scope of his or her employment in car-
16 rying out the purposes of this section, with respect
17 to tort liability, is deemed to be an employee of the
18 Federal Government.

19 (f) INTERAGENCY FINANCING, GRANTS, CONTRACTS,
20 AND AGREEMENTS.—

21 (1) IN GENERAL.—The member departments
22 and agencies of the Council, subject to the avail-
23 ability of appropriations, may participate in inter-
24 agency financing and share, transfer, receive, obli-
25 gate, and expend funds appropriated to any member

1 agency for the purposes of carrying out any adminis-
2 trative or programmatic project or activity to further
3 the purposes of this section, including support for
4 the Interagency Working Group, the Interagency Co-
5 ordinating Program Office, a common infrastruc-
6 ture, and integration to expand or otherwise enhance
7 the System.

8 (2) JOINT CENTERS AND AGREEMENTS.—Mem-
9 ber Departments and agencies of the Council shall
10 have the authority to create, support, and maintain
11 joint centers, and to enter into and perform such
12 contracts, leases, grants, and cooperative agreements
13 as may be necessary to carry out the purposes of
14 this section and fulfillment of the System Plan.

15 (g) APPLICATION WITH OTHER LAWS.—Nothing in
16 this section supersedes or limits the authority of any agen-
17 cy to carry out its responsibilities and missions under
18 other laws.

19 (h) REPORT TO CONGRESS.—

20 (1) IN GENERAL.—Not later than two years
21 after the date of enactment of this section, the Ad-
22 ministrator through the Council shall submit to Con-
23 gress a report that describes the status of the Sys-
24 tem and progress made to achieve the purposes of

1 this section and the goals identified under the Sys-
2 tem Plan.

3 (2) CONTENTS.—The report shall include dis-
4 cussion of the following:

5 (A) Identification of Federal and non-Fed-
6 eral assets as determined by the Council that
7 have been integrated into the System, including
8 assets essential to the gathering of required ob-
9 servation data variables necessary to meet the
10 respective missions of Council agencies.

11 (B) A review of procurements, planned or
12 initiated, by each Council agency to enhance,
13 expand, or modernize the observation capabili-
14 ties and data products provided by the System,
15 including data management and communication
16 subsystems.

17 (C) An assessment regarding activities to
18 integrate Federal and non-Federal assets, na-
19 tionally and on the regional level, and discus-
20 sion of the performance and effectiveness of Re-
21 gional Information Coordination Entities to co-
22 ordinate regional observation operations.

23 (D) An evaluation of progress made by the
24 Council to achieve the purposes of this section
25 and the goals identified under the System Plan.

1 (E) Recommendations for operational im-
2 provements to enhance the efficiency, accuracy,
3 and overall capability of the System.

4 (3) BIENNIAL UPDATE.—Two years after the
5 transmittal of the initial report prepared pursuant to
6 this subsection and biennially thereafter, the Admin-
7 istrator, through the Council, shall submit to Con-
8 gress an update of the initial report.

9 (i) PUBLIC-PRIVATE USE POLICY.—The Council
10 shall develop a policy within 6 months after the date of
11 the enactment of this section that defines processes for
12 making decisions about the roles of the Federal Govern-
13 ment, the States, Regional Information Coordination En-
14 tities, the academic community, and the private sector in
15 providing to end-user communities environmental informa-
16 tion, products, technologies, and services related to the
17 System. The Council shall publish the policy in the Fed-
18 eral Register for public comment for a period not less than
19 60 days. Nothing in this subsection shall be construed to
20 require changes in policy in effect on the date of the enact-
21 ment of this Act.

22 (j) INDEPENDENT COST ESTIMATE.—The Inter-
23 agency Working Group, through the Administrator and
24 the Director of the National Science Foundation, shall ob-
25 tain within one year after the date of the enactment of

1 this section an independent cost estimate for operations
2 and maintenance of existing Federal assets of the System,
3 and planned or anticipated acquisition, operation, and
4 maintenance of new Federal assets for the System, includ-
5 ing operation facilities, observation equipment, modeling
6 and software, data management and communication, and
7 other essential components. The independent cost estimate
8 shall be transmitted unabridged and without revision by
9 the Administrator to Congress.

10 (k) INTENT OF CONGRESS.—It is the intent of Con-
11 gress that funding provided to agencies of the Council to
12 implement this section shall supplement, and not replace,
13 existing sources of funding for other programs. It is the
14 further intent of Congress that agencies of the Council
15 shall not enter into contracts or agreements for the devel-
16 opment or procurement of new Federal assets for the Sys-
17 tem that are estimated to be in excess of \$250,000,000
18 in life-cycle costs without first providing adequate notice
19 to Congress and opportunity for review and comment.

20 **Subtitle E—Royalties Under**
21 **Offshore Oil and Gas Leases**

22 **SEC. 7501. SHORT TITLE.**

23 This subtitle may be cited as the “Royalty Relief for
24 American Consumers Act of 2007”.

1 **SEC. 7502. PRICE THRESHOLDS FOR ROYALTY SUSPENSION**
2 **PROVISIONS.**

3 The Secretary of the Interior shall agree to a request
4 by any lessee to amend any lease issued for any Central
5 and Western Gulf of Mexico tract during the period of
6 January 1, 1998, through December 31, 1999, to incor-
7 porate price thresholds applicable to royalty suspension
8 provisions, that are equal to or less than the price thresh-
9 olds described in clauses (v) through (vii) of section
10 8(a)(3)(C) of the Outer Continental Shelf Lands Act (43
11 U.S.C. 1337(a)(3)(C)). Any amended lease shall impose
12 the new or revised price thresholds effective October 1,
13 2006. Existing lease provisions shall prevail through Sep-
14 tember 30, 2006.

15 **SEC. 7503. CLARIFICATION OF AUTHORITY TO IMPOSE**
16 **PRICE THRESHOLDS FOR CERTAIN LEASE**
17 **SALES.**

18 Congress reaffirms the authority of the Secretary of
19 the Interior under section 8(a)(1)(H) of the Outer Conti-
20 nental Shelf Lands Act (43 U.S.C. 1337(a)(1)(H)) to
21 vary, based on the price of production from a lease, the
22 suspension of royalties under any lease subject to section
23 304 of the Outer Continental Shelf Deep Water Royalty
24 Relief Act (Public Law 104–58; 43 U.S.C. 1337 note).

1 **SEC. 7504. ELIGIBILITY FOR NEW LEASES AND THE TRANS-**
2 **FER OF LEASES; CONSERVATION OF RE-**
3 **SOURCES FEES.**

4 (a) ISSUANCE OF NEW LEASES.—

5 (1) IN GENERAL.—The Secretary shall not
6 issue any new lease that authorizes the production
7 of oil or natural gas in the Gulf of Mexico under the
8 Outer Continental Shelf Lands Act (43 U.S.C. 1331
9 et seq.) to a person described in paragraph (2) un-
10 less—

11 (A) the person has renegotiated each cov-
12 ered lease with respect to which the person is
13 a lessee, to modify the payment responsibilities
14 of the person to include price thresholds that
15 are equal to or less than the price thresholds
16 described in clauses (v) through (vii) of section
17 8(a)(3)(C) of the Outer Continental Shelf
18 Lands Act (43 U.S.C. 1337(a)(3)(C)); or

19 (B) the person has—

20 (i) paid all fees established by the
21 Secretary under subsection (b) that are
22 due with respect to each covered lease for
23 which the person is a lessee; or

24 (ii) entered into an agreement with
25 the Secretary under which the person is
26 obligated to pay such fees.

1 (2) PERSONS DESCRIBED.—A person referred
2 to in paragraph (1) is a person that—

3 (A) is a lessee that—

4 (i) holds a covered lease on the date
5 on which the Secretary considers the
6 issuance of the new lease; or

7 (ii) was issued a covered lease before
8 the date of enactment of this Act, but
9 transferred the covered lease to another
10 person or entity (including a subsidiary or
11 affiliate of the lessee) after the date of en-
12 actment of this Act; or

13 (B) any other person or entity who has
14 any direct or indirect interest in, or who derives
15 any benefit from, a covered lease;

16 (3) MULTIPLE LESSEES.—

17 (A) IN GENERAL.—For purposes of para-
18 graph (1), if there are multiple lessees that own
19 a share of a covered lease, the Secretary may
20 implement separate agreements with any lessee
21 with a share of the covered lease that modifies
22 the payment responsibilities with respect to the
23 share of the lessee to include price thresholds
24 that are equal to or less than the price thresh-
25 olds described in clauses (v) through (vii) of

1 section 8(a)(3)(C) of the Outer Continental
2 Shelf Lands Act (43 U.S.C. 1337(a)(3)(C)).

3 (B) TREATMENT OF SHARE AS COVERED
4 LEASE.—Beginning on the effective date of an
5 agreement under subparagraph (A), any share
6 subject to the agreement shall not constitute a
7 covered lease with respect to any lessees that
8 entered into the agreement.

9 (b) CONSERVATION OF RESOURCES FEES.—

10 (1) IN GENERAL.—Not later than 60 days after
11 the date of enactment of this Act, the Secretary of
12 the Interior by regulation shall establish—

13 (A) a conservation of resources fee for pro-
14 ducing Federal oil and gas leases in the Gulf of
15 Mexico; and

16 (B) a conservation of resources fee for
17 nonproducing Federal oil and gas leases in the
18 Gulf of Mexico.

19 (2) PRODUCING LEASE FEE TERMS.—The fee
20 under paragraph (1)(A)—

21 (A) subject to subparagraph (C), shall
22 apply to covered leases that are producing
23 leases;

1 (B) shall be set at \$9 per barrel for oil and
2 \$1.25 per million Btu for gas, respectively, in
3 2005 dollars; and

4 (C) shall apply only to production of oil or
5 gas occurring—

6 (i) in any calendar year in which the
7 arithmetic average of the daily closing
8 prices for light sweet crude oil on the New
9 York Mercantile Exchange (NYMEX) ex-
10 ceeds \$34.73 per barrel for oil and \$4.34
11 per million Btu for gas in 2005 dollars;
12 and

13 (ii) on or after October 1, 2006.

14 (3) NONPRODUCING LEASE FEE TERMS.—The
15 fee under paragraph (1)(B)—

16 (A) subject to subparagraph (C), shall
17 apply to leases that are nonproducing leases;

18 (B) shall be set at \$3.75 per acre per year
19 in 2005 dollars; and

20 (C) shall apply on and after October 1,
21 2006.

22 (4) TREATMENT OF RECEIPTS.—Amounts re-
23 ceived by the United States as fees under this sub-
24 section shall be treated as offsetting receipts.

1 (c) TRANSFERS.—A lessee or any other person who
2 has any direct or indirect interest in, or who derives a
3 benefit from, a lease shall not be eligible to obtain by sale
4 or other transfer (including through a swap, spinoff, serv-
5 icing, or other agreement) any covered lease, the economic
6 benefit of any covered lease, or any other lease for the
7 production of oil or natural gas in the Gulf of Mexico
8 under the Outer Continental Shelf Lands Act (43 U.S.C.
9 1331 et seq.), unless—

10 (1) the lessee or other person has—

11 (A) renegotiated all covered leases of the
12 lessee or other person; and

13 (B) entered into an agreement with the
14 Secretary to modify the terms of all covered
15 leases of the lessee or other person to include
16 limitations on royalty relief based on market
17 prices that are equal to or less than the price
18 thresholds described in clauses (v) through (vii)
19 of section 8(a)(3)(C) of the Outer Continental
20 Shelf Lands Act (43 U.S.C. 1337(a)(3)(C)); or

21 (2) the lessee or other person has—

22 (A) paid all fees established by the Sec-
23 retary under subsection (b) that are due with
24 respect to each covered lease for which the per-
25 son is a lessee; or

1 (B) entered into an agreement with the
2 Secretary under which the person is obligated
3 to pay such fees.

4 (d) DEFINITIONS.—In this section—

5 (1) COVERED LEASE.—The term “covered
6 lease” means a lease for oil or gas production in the
7 Gulf of Mexico that is—

8 (A) in existence on the date of enactment
9 of this Act;

10 (B) issued by the Department of the Inte-
11 rior under section 304 of the Outer Continental
12 Shelf Deep Water Royalty Relief Act (43
13 U.S.C. 1337 note; Public Law 104–58); and

14 (C) not subject to limitations on royalty re-
15 lief based on market price that are equal to or
16 less than the price thresholds described in
17 clauses (v) through (vii) of section 8(a)(3)(C) of
18 the Outer Continental Shelf Lands Act (43
19 U.S.C. 1337(a)(3)(C)).

20 (2) LESSEE.—The term “lessee” includes any
21 person or other entity that controls, is controlled by,
22 or is in or under common control with, a lessee.

23 (3) SECRETARY.—The term “Secretary” means
24 the Secretary of the Interior.

1 **SEC. 7505. REPEAL OF CERTAIN TAXPAYER SUBSIDIZED**
2 **ROYALTY RELIEF FOR THE OIL AND GAS IN-**
3 **DUSTRY.**

4 (a) REPEAL OF PROVISIONS OF ENERGY POLICY ACT
5 OF 2005.—The following provisions of the Energy Policy
6 Act of 2005 (Public Law 109–58) are repealed:

7 (1) Section 344 (42 U.S.C. 15904; relating to
8 incentives for natural gas production from deep wells
9 in shallow waters of the Gulf of Mexico).

10 (2) Section 345 (42 U.S.C. 15905; relating to
11 royalty relief for deep water production in the Gulf
12 of Mexico).

13 (b) PROVISIONS RELATING TO PLANNING AREAS
14 OFFSHORE ALASKA.—Section 8(a)(3)(B) of the Outer
15 Continental Shelf Lands Act (43 U.S.C. 1337(a)(3)(B))
16 is amended by striking “and in the Planning Areas off-
17 shore Alaska” after “West longitude”.

18 (c) PROVISIONS RELATING TO NAVAL PETROLEUM
19 RESERVE IN ALASKA.—Section 107 of the Naval Petro-
20 leum Reserves Production Act of 1976 (as transferred, re-
21 designated, moved, and amended by section 347 of the En-
22 ergy Policy Act of 2005 (119 Stat. 704)) is amended—

23 (1) in subsection (i) by striking paragraphs (2)
24 through (6); and

25 (2) by striking subsection (k).

1 **Subtitle F—Additional Provisions**

2 **SEC. 7601. OIL SHALE COMMUNITY IMPACT ASSISTANCE.**

3 (a) ESTABLISHMENT OF FUND.—There is estab-
4 lished on the books of the Treasury of the United States
5 a separate account to be known as the Oil Shale Commu-
6 nity Impact Assistance Fund (hereinafter in this section
7 referred to as the “Fund”). The Fund shall be adminis-
8 tered by the Secretary of the Interior acting through the
9 Director of the Bureau of Land Management.

10 (b) CONTENTS.—

11 (1) IN GENERAL.—There shall be credited to
12 the Fund—

13 (A) all amounts paid to the United States
14 as bonus bids in connection with the award of
15 commercial oil shale leases pursuant to section
16 369(e) of the Energy Policy Act of 2005 (42
17 U.S.C. 15927(e)); and

18 (B) an amount equal to 25 percent of the
19 portion of the other amounts deposited into the
20 Treasury pursuant to section 35(a) of the Min-
21 eral Leasing Act (30 U.S.C. 191) with respect
22 to such leases, that remains after deduction of
23 all payments made pursuant to of such section.

24 (2) TERMINATION OF CREDITING OF ROYAL-
25 TIES.—Paragraph (1)(B) shall not apply to royalties

1 received by the United States under a commercial oil
2 shale lease after the end of the 10-year period begin-
3 ning on the date on which the first amount of roy-
4 alty under such lease is paid to the United States.

5 (c) DISTRIBUTION.—

6 (1) IN GENERAL.—The Secretary, subject to
7 the availability of appropriations, shall use amounts
8 in the Fund to annually pay to each county in which
9 is located land subject to a commercial oil shale
10 lease referred to in subsection (b)(1) an amount
11 equal to the amount credited to the Fund during the
12 preceding year pursuant to section (b) with respect
13 to such lease. If such land is located in more than
14 one county, the Secretary shall allocate such pay-
15 ment among such counties on the basis of the rel-
16 ative amount of lands subject to the lease within
17 each such county.

18 (2) USE OF PAYMENT.—Amounts paid to a
19 county under this subsection shall be used by the
20 county for the planning, construction, and mainte-
21 nance of public facilities and the provision of public
22 services.

23 **SEC. 7602. ADDITIONAL NOTICE REQUIREMENTS.**

24 (a) PERMITTEES.—At least 45 days before offering
25 lands for lease pursuant to section 17(f) of the Mineral

1 Leasing Act (30 U.S.C. 226(f)), the Secretary of the Inte-
2 rior shall provide notice of the proposed leasing activity
3 in writing to the holders of special recreation permits for
4 commercial use, competitive events, and other organized
5 activities on the lands being offered for lease.

6 (b) CONSERVATION EASEMENT HOLDERS.—

7 (1) If the holder of a conservation easement or
8 similar property interest in the surface estate of
9 lands eligible for leasing under the Mineral Leasing
10 Act has informed the Secretary of the Interior of the
11 existence of such property interest, the Secretary
12 shall treat such holder as a surface estate owner for
13 purposes of section 7221(d) of this title.

14 (2) As soon as possible after the date of enact-
15 ment of this Act, the Secretary of the Interior shall
16 establish a means for holders of property interests
17 described in paragraph (1) to provide notice of such
18 interests, and shall inform the public regarding such
19 means.

20 **SEC. 7603. DAVIS-BACON ACT.**

21 All laborers and mechanics employed by contractors
22 and subcontractors on construction, repair, or alteration
23 projects that are funded in whole or in part or otherwise
24 authorized under sections 7304 or 7306 shall be paid
25 wages at rates not less than those prevailing on similar

1 construction in the locality, as determined by the Sec-
2 retary of Labor in accordance with subchapter IV of chap-
3 ter 31 of title 40, United States Code. The Secretary of
4 Labor shall, with respect to the labor standards in this
5 title, have the authority and functions set forth in Reorga-
6 nization Plan Numbered 14 of 1950 (15 Fed. Reg. 3176;
7 5 U.S.C. App.) and section 3145 of title 40, United States
8 Code.

9 **SEC. 7604. ROAN PLATEAU, COLORADO.**

10 (a) LEASES FOR TOP OF PLATEAU.—

11 (1) PROHIBITION.—The Secretary of the Inte-
12 rior shall include in each lease under the Mineral
13 Leasing Act (30 U.S.C. 181 et seq.) for lands to
14 which this subsection applies a prohibition of surface
15 occupancy for purposes of exploration for or develop-
16 ment of oil or gas.

17 (2) APPLICATION.—This subsection applies to
18 all Federal lands in Colorado that were formerly
19 designated as Naval Oil Shale Reserves 1 and 3 that
20 are located within the rim boundary, as such bound-
21 ary is depicted on Map 1 accompanying the Bureau
22 of Land Management's final Resource Management
23 Plan Amendment and Environmental Impact State-
24 ment for the Roan Plateau Planning Area dated Au-
25 gust, 2006.

1 (b) REPORT ON CLEANUP STATUS.—No later than
2 30 days after the date of enactment of this Act—

3 (1) the Secretary of the Treasury shall provide
4 to the appropriate Committees of Congress a report
5 detailing the total amounts received by the United
6 States under leases of Federal lands in Colorado for-
7 merly designated as Naval Oil Shale Reserves 1 and
8 3 pursuant to section 7439 of title 10, United States
9 Code, and covered into the Treasury pursuant to
10 subsection (f) of such section; and

11 (2) the Secretary of the Interior shall provide to
12 the appropriate committees of Congress a report—

13 (A) detailing the amounts expended by the
14 United States for environmental restoration,
15 waste management, and environmental compli-
16 ance activities with respect to the lands de-
17 scribed in paragraph (1), to repay the cost to
18 the United States to originally install wells,
19 gathering lines, and related equipment on such
20 lands, and any other cost incurred by the
21 United States with respect to such lands; and

22 (B) stating what further actions are re-
23 quired to complete the needed environmental
24 restoration, waste management, and environ-
25 mental compliance activities with regard to such

1 lands, the estimated cost of such activities, and
2 when the Secretary expects such activities will
3 be completed.

4 **SEC. 7605. REPORT ON STATUS OF REGULATIONS WITH RE-**
5 **SPECT TO WIND ENERGY PROJECTS.**

6 Not later than 30 days after the date of the enact-
7 ment of this Act, the Secretary of the Interior, acting
8 through the Minerals Management Service, shall submit
9 a report to Congress on the status of regulations required
10 to be issued under section 8(p)(8)) of the Outer Conti-
11 nental Shelf Lands Act (43 U.S.C. 1337(p)(8)) with re-
12 spect to the production of wind energy on the Outer Conti-
13 nental Shelf.

14 **TITLE VIII—TRANSPORTATION**
15 **AND INFRASTRUCTURE**

16 **SEC. 8001. SHORT TITLE.**

17 This title may be cited as the “Transportation En-
18 ergy Security and Climate Change Mitigation Act of
19 2007”.

20 **SEC. 8002. FINDINGS AND PURPOSES.**

21 (a) FINDINGS.—Congress makes the following find-
22 ings:

23 (1) Evidence that atmospheric warming and cli-
24 mate change are occurring is unequivocal.

1 (2) Observed and anticipated impacts of climate
2 change can result in economic harm and environ-
3 mental damage to the United States and the world.

4 (3) The Nation's water resources, ecosystems,
5 and infrastructure will be under increasing stress
6 and pressure in coming decades, particularly due to
7 climate change.

8 (4) Greenhouse gases, such as carbon dioxide,
9 methane, and nitrous oxides, can lead to atmos-
10 pheric warming and climate change.

11 (5) Transportation and buildings are among the
12 leading sources of greenhouse gas emissions.

13 (6) Increased reliance on energy efficient and
14 renewable energy transportation and public buildings
15 can strengthen our Nation's energy security and
16 mitigate the effects of climate change by cutting
17 greenhouse gas emissions.

18 (7) The Federal Government can strengthen
19 our Nation's energy security and mitigate the effects
20 of climate change by promoting energy efficient
21 transportation and public buildings, creating incen-
22 tives for the use of alternative fuel vehicles and re-
23 newable energy, and ensuring sound water resource
24 and natural disaster preparedness planning.

1 (b) PURPOSES.—The purposes of this title are to
2 strengthen our Nation’s energy security and mitigate the
3 effects of climate change by promoting energy efficient
4 transportation and public buildings, creating incentives for
5 the use of alternative fuel vehicles and renewable energy,
6 and ensuring sound water resource and natural disaster
7 preparedness planning.

8 **Subtitle A—Department of**
9 **Transportation**

10 **SEC. 8101. CENTER FOR CLIMATE CHANGE AND ENVIRON-**
11 **MENT.**

12 (a) IN GENERAL.—Section 102 of title 49, United
13 States Code, is amended—

14 (1) by redesignating subsection (g) as sub-
15 section (h); and

16 (2) by adding after subsection (f) the following:

17 “(g) CENTER FOR CLIMATE CHANGE AND ENVIRON-
18 MENT.—

19 “(1) ESTABLISHMENT.—There is established in
20 the Department a Center for Climate Change and
21 Environment to plan, coordinate, and implement—

22 “(A) department-wide research, strategies,
23 and actions under the Department’s statutory
24 authority to reduce transportation-related en-

1 ergy use and mitigate the effects of climate
2 change; and

3 “(B) department-wide research strategies
4 and action to address the impacts of climate
5 change on transportation systems and infra-
6 structure.

7 “(2) CLEARINGHOUSE.—The Center shall es-
8 tablish a clearinghouse of low-cost solutions, includ-
9 ing projects that are being or could be implemented
10 under the congestion mitigation and air quality im-
11 provement program of section 149 of title 23, to re-
12 duce congestion and transportation-related energy
13 use and air pollution and mitigate the effects of cli-
14 mate change.”.

15 (b) COORDINATION.—The Center for Climate Change
16 and Environment of the Department of Transportation
17 shall coordinate its activities with the United States Global
18 Change Research Program.

19 (c) LOW-COST CONGESTION SOLUTIONS.—

20 (1) STUDY.—The Center for Climate Change
21 and Environment, in coordination with the Environ-
22 mental Protection Agency, shall conduct a study to
23 examine fuel efficiency savings and clean air impacts
24 of major transportation projects, to identify low-cost
25 solutions to reduce congestion and transportation-re-

1 lated energy use and mitigate the effects of climate
2 change, to alleviate such problems as railroad pric-
3 ing that may force freight off the more fuel efficient
4 railroads and onto less fuel efficient trucks, and to
5 examine the potential fuel savings from intelligent
6 transportation systems that help businesses and con-
7 sumers to plan their travel and avoid delays, includ-
8 ing web-based real-time transit information systems,
9 congestion information systems, carpool information
10 systems, parking information systems, freight route
11 management, and traffic management systems.

12 (2) REPORT.—Not later than one year after the
13 date of enactment of this title, the Secretary of
14 Transportation, in coordination with the Adminis-
15 trator of the Environmental Protection Agency, shall
16 transmit to the Committee on Transportation and
17 Infrastructure and the Committee on Energy and
18 Commerce of the House of Representatives a report
19 on low-cost solutions to reducing congestion and
20 transportation-related energy use and mitigating the
21 effects of climate change.

22 (d) AUTHORIZATION OF APPROPRIATIONS.—There
23 are authorized to be appropriated to the Secretary for the
24 Center to carry out its duties under section 102(g) of title

1 49, United States Code, such sums as may be necessary
2 for fiscal years 2008 through 2011.

3 **Subtitle B—Highways and Transit**

4 **PART 1—PUBLIC TRANSPORTATION**

5 **SEC. 8201. GRANTS TO IMPROVE PUBLIC TRANSPORTATION** 6 **SERVICES.**

7 (a) AUTHORIZATIONS OF APPROPRIATIONS.—

8 (1) URBANIZED AREA FORMULA GRANTS.—In
9 addition to amounts allocated under section
10 5338(b)(2)(B) of title 49, United States Code, to
11 carry out section 5307 of such title, there is author-
12 ized to be appropriated \$750,000,000 for each of fis-
13 cal years 2008 and 2009 to carry out such section
14 5307. Such funds shall be apportioned in accordance
15 with section 5336 (other than subsections (i)(1) and
16 (j)) of such title but may not be combined or com-
17 mingled with any other funds apportioned under
18 such section 5336.

19 (2) FORMULA GRANTS FOR OTHER THAN UR-
20 BANIZED AREAS.—In addition to amounts allocated
21 under section 5338(b)(2)(G) of title 49, United
22 States Code, to carry out section 5311 of such title,
23 there is authorized to be appropriated \$100,000,000
24 for each of fiscal years 2008 and 2009 to carry out
25 such section 5311. Such funds shall be apportioned

1 in accordance with such section 5311 but may not
2 be combined or commingled with any other funds
3 apportioned under such section 5311.

4 (b) USE OF FUNDS.—Notwithstanding sections 5307
5 and 5311 of title 49, United States Code, the Secretary
6 of Transportation may make grants under such sections
7 from amounts appropriated under subsection (a) only for
8 one or more of the following:

9 (1) If the recipient of the grant is reducing, or
10 certifies to the Secretary that, during the term of
11 the grant, the recipient will reduce one or more fares
12 the recipient charges for public transportation, or in
13 the case of subsection (f) of such section 5311,
14 intercity bus service, those operating costs of equip-
15 ment and facilities being used to provide the public
16 transportation, or in the case of subsection (f) of
17 such section 5311, intercity bus service, that the re-
18 cipient is no longer able to pay from the revenues
19 derived from such fare or fares as a result of such
20 reduction.

21 (2) If the recipient of the grant is expanding,
22 or certifies to the Secretary that, during the term of
23 the grant, the recipient will expand public transpor-
24 tation service, or in the case of subsection (f) of
25 such section 5311, intercity bus service, those oper-

1 ating and capital costs of equipment and facilities
2 being used to provide the public transportation serv-
3 ice, or in the case of subsection (f) of such section
4 5311, intercity bus service, that the recipient incurs
5 as a result of the expansion of such service.

6 (c) FEDERAL SHARE.—Notwithstanding any other
7 provision of law, the Federal share of the costs for which
8 a grant is made under this section shall be 100 percent.

9 (d) PERIOD OF AVAILABILITY.—Funds appropriated
10 under this section shall remain available for a period of
11 2 fiscal years.

12 **SEC. 8202. INCREASED FEDERAL SHARE FOR CLEAN AIR**
13 **ACT COMPLIANCE.**

14 Notwithstanding section 5323(i)(1) of title 49,
15 United States Code, a grant for a project to be assisted
16 under chapter 53 of such title during fiscal years 2008
17 and 2009 that involves acquiring clean fuel or alternative
18 fuel vehicle-related equipment or facilities for the purposes
19 of complying with or maintaining compliance with the
20 Clean Air Act (42 U.S.C. 7401 et seq.) shall be for 100
21 percent of the net project cost of the equipment or facility
22 attributable to compliance with that Act.

1 **SEC. 8203. COMMUTER RAIL TRANSIT ENHANCEMENT.**

2 (a) AMENDMENT.—Part E of subtitle V of title 49,
3 United States Code, is amended by adding at the end the
4 following:

5 **“CHAPTER 285—COMMUTER RAIL**
6 **TRANSIT ENHANCEMENT**

“Sec.

“28501. Definitions

“28502. Surface Transportation Board mediation of trackage use requests.

“28503. Surface Transportation Board mediation of rights-of-way use requests.

“28504. Applicability of other laws.

“28505. Rules and regulations.

7 **“§ 28501. Definitions**

8 “In this chapter—

9 “(1) the term ‘Board’ means the Surface
10 Transportation Board;

11 “(2) the term ‘capital work’ means mainte-
12 nance, restoration, reconstruction, capacity enhance-
13 ment, or rehabilitation work on trackage that would
14 be treated, in accordance with generally accepted ac-
15 counting principles, as a capital item rather than an
16 expense;

17 “(3) the term ‘fixed guideway transportation’
18 means public transportation (as defined in section
19 5302(a)(10)) provided on, by, or using a fixed guide-
20 way (as defined in section 5302(a)(4));

21 “(4) the term ‘public transportation authority’
22 means a local governmental authority (as defined in

1 section 5302(a)(6)) established to provide, or make
2 a contract providing for, fixed guideway transpor-
3 tation;

4 “(5) the term ‘rail carrier’ means a person,
5 other than a governmental authority, providing com-
6 mon carrier railroad transportation for compensation
7 subject to the jurisdiction of the Board under chap-
8 ter 105;

9 “(6) the term ‘segregated fixed guideway facil-
10 ity’ means a fixed guideway facility constructed
11 within the railroad right-of-way of a rail carrier but
12 physically separate from trackage, including relo-
13 cated trackage, within the right-of-way used by a
14 rail carrier for freight transportation purposes; and

15 “(7) the term ‘trackage’ means a railroad line
16 of a rail carrier, including a spur, industrial, team,
17 switching, side, yard, or station track, and a facility
18 of a rail carrier.

19 **“§ 28502. Surface Transportation Board mediation of**
20 **trackage use requests**

21 “If, after a reasonable period of negotiation, a public
22 transportation authority cannot reach agreement with a
23 rail carrier to use trackage of, and have related services
24 provided by, the rail carrier for purposes of fixed guideway
25 transportation, the public transportation authority or the

1 rail carrier may apply to the Board for nonbinding medi-
2 ation. The Board shall conduct the nonbinding mediation
3 in accordance with the mediation process of section 1109.4
4 of title 49, Code of Federal Regulations, as in effect on
5 the date of enactment of this section.

6 **“§ 28503. Surface Transportation Board mediation of**
7 **rights-of-way use requests**

8 “If, after a reasonable period of negotiation, a public
9 transportation authority cannot reach agreement with a
10 rail carrier to acquire an interest in a railroad right-of-
11 way for the construction and operation of a segregated
12 fixed guideway facility, the public transportation authority
13 or the rail carrier may apply to the Board for nonbinding
14 mediation. The Board shall conduct the nonbinding medi-
15 ation in accordance with the mediation process of section
16 1109.4 of title 49, Code of Federal Regulations, as in ef-
17 fect on the date of enactment of this section.

18 **“§ 28504. Applicability of other laws**

19 “Nothing in this chapter shall be construed to limit
20 a rail transportation provider’s right under section
21 28103(b) to enter into contracts that allocate financial re-
22 sponsibility for claims.

1 **“§ 28505. Rules and regulations**

2 “Not later than 180 days after the date of enactment
3 of this section, the Board shall issue such rules and regu-
4 lations as may be necessary to carry out this chapter.”.

5 (b) CLERICAL AMENDMENT.—The table of chapters
6 of such subtitle is amended by adding after the item relat-
7 ing to chapter 283 the following:

“285. COMMUTER RAIL TRANSIT ENHANCEMENT 28501”.

8 **SEC. 8204. CAPITAL COST OF CONTRACTING VANPOOL**
9 **PILOT PROGRAM.**

10 (a) ESTABLISHMENT.—The Secretary of Transpor-
11 tation shall establish and implement a pilot program to
12 carry out vanpool demonstration projects in not more than
13 3 urbanized areas and not more than 2 other than urban-
14 ized areas.

15 (b) PILOT PROGRAM.—

16 (1) IN GENERAL.—Notwithstanding section
17 5323(i) of title 49, United States Code, for each
18 project selected for participation in the pilot pro-
19 gram, the Secretary shall allow the non-Federal
20 share provided by a recipient of assistance for a cap-
21 ital project under chapter 53 of such title to include
22 the amounts described in paragraph (2).

23 (2) CONDITIONS ON ACQUISITION OF VANS.—

24 The amount expended by a private provider of public
25 transportation by vanpool for the acquisition of vans

1 to be used by such private provider in the recipient's
2 service area, excluding any amounts the provider
3 may have received in Federal, State, or local govern-
4 ment assistance for such acquisition, if the private
5 provider enters into a legally binding agreement with
6 the recipient that requires the private provider to
7 use all revenues it receives in providing public trans-
8 portation in such service area, in excess of its oper-
9 ating costs, for the purpose of acquiring vans to be
10 used by the private provider in such service area.

11 (c) PROGRAM TERM.—The Secretary may approve an
12 application for a vanpool demonstration project for fiscal
13 years 2008 through 2009.

14 (d) REPORT TO CONGRESS.—Not later than 1 year
15 after the date of enactment of this Act, the Secretary shall
16 transmit to the Committee on Transportation and Infra-
17 structure of the House of Representatives and the Com-
18 mittee on Banking, Housing, and Urban Affairs of the
19 Senate, a report containing an assessment of the costs,
20 benefits, and efficiencies of the vanpool demonstration
21 projects.

PART 2—FEDERAL-AID HIGHWAYS

**SEC. 8251. INCREASED FEDERAL SHARE FOR CMAQ
PROJECTS.**

Section 120(c) of title 23, United States Code, is amended—

(1) in the subsection heading by striking “FOR CERTAIN SAFETY PROJECTS”;

(2) by striking “The Federal share” and inserting the following:

“(1) CERTAIN SAFETY PROJECTS.—The Federal share”; and

(3) by adding at the end the following:

“(2) CMAQ PROJECTS.—The Federal share payable on account of a project or program carried out under section 149 with funds obligated in fiscal year 2008 or 2009, or both, shall be 100 percent of the cost thereof.”.

SEC. 8252. DISTRIBUTION OF RESCISSIONS.

(a) IN GENERAL.—Any unobligated balances of amounts that are appropriated from the Highway Trust Fund for a fiscal year, and apportioned under chapter 1 of title 23, United States Code, before, on, or after the date of enactment of this Act and that are rescinded after such date of enactment shall be distributed within each State (as defined in section 101 of such title) among all programs for which funds are apportioned under such

1 chapter for such fiscal year, to the extent sufficient funds
2 remain available for obligation, in the ratio that the
3 amount of funds apportioned for each program under such
4 chapter for such fiscal year, bears to the amount of funds
5 apportioned for all such programs under such chapter for
6 such fiscal year.

7 (b) TREATMENT OF TRANSPORTATION ENHANCE-
8 MENT SET-ASIDE AND FUNDS SUBALLOCATED TO SUB-
9 STATE AREAS.—Funds set aside under sections 133(d)(2)
10 and 133(d)(3) of title 23, United States Code, shall be
11 treated as being apportioned under chapter 1 of such title
12 for purposes of subsection (a).

13 **SEC. 8253. SENSE OF CONGRESS REGARDING USE OF COM-**
14 **plete Streets Design Techniques.**

15 It is the sense of Congress that in constructing new
16 roadways or rehabilitating existing facilities, State and
17 local governments should employ policies designed to ac-
18 commodate all users, including motorists, pedestrians, cy-
19 clists, transit riders, and people of all ages and abilities,
20 in order to—

- 21 (1) serve all surface transportation users by
22 creating a more interconnected and intermodal sys-
23 tem;
24 (2) create more viable transportation options;
25 and

1 (3) facilitate the use of environmentally friendly
2 options, such as public transportation, walking, and
3 bicycling.

4 **Subtitle C—Railroad and Pipeline** 5 **Transportation**

6 **PART 1—RAILROADS**

7 **SEC. 8301. ADVANCED TECHNOLOGY LOCOMOTIVE GRANT** 8 **PILOT PROGRAM.**

9 (a) IN GENERAL.—The Secretary of Transportation,
10 in coordination with the Administrator of the Environ-
11 mental Protection Agency, shall establish and carry out
12 a pilot program for making grants to railroad carriers (as
13 defined in section 20102 of title 49, United States Code)
14 and State and local governments—

15 (1) for assistance in purchasing hybrid loco-
16 motives, including hybrid switch locomotives; and

17 (2) to demonstrate the extent to which such lo-
18 comotives increase fuel economy, reduce emissions,
19 and lower costs of operation.

20 (b) LIMITATION.—Notwithstanding subsection (a),
21 no grant under this section may be used to fund the costs
22 of emissions reductions that are mandated under Federal,
23 State, or local law.

24 (c) GRANT CRITERIA.—In selecting applicants for
25 grants under this section, the Secretary shall consider—

1 (1) the level of energy efficiency that would be
2 achieved by the proposed project;

3 (2) the extent to which the proposed project
4 would assist in commercial deployment of hybrid lo-
5 comotive technologies;

6 (3) the extent to which the proposed project
7 complements other private or governmental partner-
8 ship efforts to improve air quality or fuel efficiency
9 in a particular area; and

10 (4) the extent to which the applicant dem-
11 onstrates innovative strategies and a financial com-
12 mitment to increasing energy efficiency and reducing
13 greenhouse gas emissions of its railroad operations.

14 (d) COMPETITIVE GRANT SELECTION PROCESS.—

15 (1) APPLICATIONS.—A railroad carrier or State
16 or local government seeking a grant under this sec-
17 tion shall submit for approval by the Secretary an
18 application for the grant under this section con-
19 taining such information as the Secretary may re-
20 quire to receive a grant under this section.

21 (2) COMPETITIVE SELECTION.—The Secretary
22 shall conduct a national solicitation for applications
23 for grants under this section and shall select grant-
24 ees on a competitive basis.

1 (e) FEDERAL SHARE.—The Federal share of the cost
 2 of a project under this section shall not exceed 90 percent
 3 of the project cost.

4 (f) REPORT.—Not later than 3 years after the date
 5 of enactment of this Act, the Secretary shall submit to
 6 Congress a report on the results of the pilot program car-
 7 ried out under this section.

8 (g) AUTHORIZATION OF APPROPRIATIONS.—There is
 9 authorized to be appropriated to the Secretary
 10 \$10,000,000 for each of the fiscal years 2008 through
 11 2011 to carry out this section. Such funds shall remain
 12 available until expended.

13 **SEC. 8302. CAPITAL GRANTS FOR RAILROAD TRACK.**

14 (a) AMENDMENT.—Chapter 223 of title 49, United
 15 States Code, is amended to read as follows:

16 **“CHAPTER 223—CAPITAL GRANTS FOR**
 17 **RAILROAD TRACK**

“Sec.

“22301. Capital grants for railroad track.

18 **“§ 22301. Capital grants for railroad track**

19 **“(a) ESTABLISHMENT OF PROGRAM.—**

20 **“(1) ESTABLISHMENT.—**The Secretary of
 21 Transportation shall establish a program of capital
 22 grants for the rehabilitation, preservation, or im-
 23 provement of railroad track (including roadbed,
 24 bridges, and related track structures) of class II and

1 class III railroads. Such grants shall be for rehabili-
2 tating, preserving, or improving track used primarily
3 for freight transportation to a standard ensuring
4 that the track can be operated safely and efficiently,
5 including grants for rehabilitating, preserving, or im-
6 proving track to handle 286,000 pound railcars.
7 Grants may be provided under this chapter—

8 “(A) directly to the class II or class III
9 railroad; or

10 “(B) with the concurrence of the class II
11 or class III railroad, to a State or local govern-
12 ment.

13 “(2) STATE COOPERATION.—Class II and class
14 III railroad applicants for a grant under this chap-
15 ter are encouraged to utilize the expertise and assist-
16 ance of State transportation agencies in applying for
17 and administering such grants. State transportation
18 agencies are encouraged to provide such expertise
19 and assistance to such railroads.

20 “(3) INTERIM REGULATIONS.—Not later than
21 December 31, 2007, the Secretary shall issue tem-
22 porary regulations to implement the program under
23 this section. Subchapter II of chapter 5 of title 5
24 does not apply to a temporary regulation issued

1 under this paragraph or to an amendment to such
2 a temporary regulation.

3 “(4) FINAL REGULATIONS.—Not later than Oc-
4 tober 1, 2008, the Secretary shall issue final regula-
5 tions to implement the program under this section.

6 “(b) MAXIMUM FEDERAL SHARE.—The maximum
7 Federal share for carrying out a project under this section
8 shall be 80 percent of the project cost. The non-Federal
9 share may be provided by any non-Federal source in cash,
10 equipment, or supplies. Other in-kind contributions may
11 be approved by the Secretary on a case-by-case basis con-
12 sistent with this chapter.

13 “(c) PROJECT ELIGIBILITY.—For a project to be eli-
14 gible for assistance under this section the track must have
15 been operated or owned by a class II or class III railroad
16 as of the date of the enactment of this chapter.

17 “(d) USE OF FUNDS.—Grants provided under this
18 section shall be used to implement track capital projects
19 as soon as possible. In no event shall grant funds be con-
20 tractually obligated for a project later than the end of the
21 third Federal fiscal year following the year in which the
22 grant was awarded. Any funds not so obligated by the end
23 of such fiscal year shall be returned to the Secretary for
24 reallocation.

1 “(e) EMPLOYEE PROTECTION.—The Secretary shall
2 require as a condition of any grant made under this sec-
3 tion that the recipient railroad provide a fair arrangement
4 at least as protective of the interests of employees who
5 are affected by the project to be funded with the grant
6 as the terms imposed under section 11326(a), as in effect
7 on the date of the enactment of this chapter.

8 “(f) LABOR STANDARDS.—

9 “(1) PREVAILING WAGES.—The Secretary shall
10 ensure that laborers and mechanics employed by
11 contractors and subcontractors in construction work
12 financed by a grant made under this section will be
13 paid wages not less than those prevailing on similar
14 construction in the locality, as determined by the
15 Secretary of Labor under subchapter IV of chapter
16 31 of title 40 (commonly known as the ‘Davis-Bacon
17 Act’). The Secretary shall make a grant under this
18 section only after being assured that required labor
19 standards will be maintained on the construction
20 work.

21 “(2) WAGE RATES.—Wage rates in a collective
22 bargaining agreement negotiated under the Railway
23 Labor Act (45 U.S.C. 151 et seq.) are deemed for
24 purposes of this subsection to comply with the sub-
25 chapter IV of chapter 31 of title 40.

1 “(g) STUDY.—The Secretary shall conduct a study
 2 of the projects carried out with grant assistance under this
 3 section to determine the public interest benefits associated
 4 with the light density railroad networks in the States and
 5 their contribution to a multimodal transportation system.
 6 Not later than March 31, 2009, the Secretary shall report
 7 to Congress any recommendations the Secretary considers
 8 appropriate regarding the eligibility of light density rail
 9 networks for Federal infrastructure financing.

10 “(h) AUTHORIZATION OF APPROPRIATIONS.—There
 11 is authorized to be appropriated to the Secretary of Trans-
 12 portation \$250,000,000 for each of fiscal years 2008
 13 through 2011 for carrying out this section.”.

14 (b) CLERICAL AMENDMENT.—The item relating to
 15 chapter 223 in the table of chapters of subtitle V of title
 16 49, United States Code, is amended to read as follows:

“223. CAPITAL GRANTS FOR RAILROAD TRACK 22301”.

17 **PART 2—PIPELINES**

18 **SEC. 8311. FEASIBILITY STUDIES.**

19 (a) IN GENERAL.—The Secretary of Energy, in co-
 20 ordination with the Secretary of Transportation, shall con-
 21 duct feasibility studies for the construction of pipeline
 22 dedicated to the transportation of ethanol.

23 (b) REPORT.—Not later than 1 year after the date
 24 of enactment of this Act, the Secretary of Energy shall
 25 submit to the Committee on Transportation and Infra-

1 structure of the House of Representatives and the Com-
2 mittee on Commerce, Science, and Transportation of the
3 Senate a report on such feasibility studies.

4 (c) STUDY FACTORS.—Feasibility studies funded
5 under this part shall include consideration of—

6 (1) existing or potential barriers to the con-
7 struction of pipelines dedicated to the transportation
8 of ethanol, including technical, siting, financing, and
9 regulatory barriers;

10 (2) market risk, including throughput risk;

11 (3) regulatory, financing, and siting options
12 that would mitigate such risk and help ensure the
13 construction of pipelines dedicated to the transpor-
14 tation of ethanol;

15 (4) ensuring the safe transportation of ethanol
16 and preventive measures to ensure pipeline integrity;
17 and

18 (5) such other factors as the Secretary of En-
19 ergy considers appropriate.

20 (d) AUTHORIZATION OF APPROPRIATIONS.—There
21 are authorized to be appropriated to the Secretary of En-
22 ergy to carry out this section \$1,000,000 for each of the
23 fiscal years 2008 and 2009, to remain available until ex-
24 pended.

Subtitle D—Maritime Transportation

PART 1—GENERAL PROVISIONS

SEC. 8401. SHORT SEA TRANSPORTATION INITIATIVE.

(a) IN GENERAL.—Title 46, United States Code, is amended by adding after chapter 555 the following:

“CHAPTER 556—SHORT SEA TRANSPORTATION

“Sec. 55601. Short sea transportation program.

“Sec. 55602. Cargo and shippers.

“Sec. 55603. Financing of short sea transportation projects.

“Sec. 55604. Interagency coordination.

“Sec. 55605. Research on short sea transportation.

“Sec. 55606. Short sea transportation defined.

9 “§ 55601. Short sea transportation program

“(a) ESTABLISHMENT.—The Secretary of Transportation shall establish a short sea transportation program and designate short sea transportation projects to be conducted under the program to mitigate landside congestion.

“(b) PROGRAM ELEMENTS.—The program shall encourage the use of short sea transportation through the development and expansion of—

“(1) documented vessels;

“(2) shipper utilization;

“(3) port and landside infrastructure; and

“(4) marine transportation strategies by State and local governments.

1 “(c) SHORT SEA TRANSPORTATION ROUTES.—The
2 Secretary shall designate short sea transportation routes
3 as extensions of the surface transportation system to focus
4 public and private efforts to use the waterways to relieve
5 landside congestion along coastal corridors. The Secretary
6 may collect and disseminate data for the designation and
7 delineation of short sea transportation routes.

8 “(d) PROJECT DESIGNATION.—The Secretary may
9 designate a project to be a short sea transportation project
10 if the Secretary determines that the project may—

11 “(1) offer a waterborne alternative to available
12 landside transportation services using documented
13 vessels; and

14 “(2) provide transportation services for pas-
15 sengers or freight (or both) that may reduce conges-
16 tion on landside infrastructure using documented
17 vessels.

18 “(e) ELEMENTS OF PROGRAM.—For a short sea
19 transportation project designated under this section, the
20 Secretary of Transportation may—

21 “(1) promote the development of short sea
22 transportation services;

23 “(2) coordinate, with ports, State departments
24 of transportation, localities, other public agencies,
25 and the private sector and on the development of

1 landside facilities and infrastructure to support
2 short sea transportation services; and

3 “(3) develop performance measures for the
4 short sea transportation program.

5 “(f) MULTISTATE, STATE AND REGIONAL TRANS-
6 PORTATION PLANNING.—The Secretary, in consultation
7 with Federal entities and State and local governments,
8 shall develop strategies to encourage the use of short sea
9 transportation for transportation of passengers and cargo.
10 The Secretary shall—

11 “(1) assess the extent to which States and local
12 governments include short sea transportation and
13 other marine transportation solutions in their trans-
14 portation planning;

15 “(2) encourage State departments of transpor-
16 tation to develop strategies, where appropriate, to
17 incorporate short sea transportation, ferries, and
18 other marine transportation solutions for regional
19 and interstate transport of freight and passengers in
20 their transportation planning; and

21 “(3) encourage groups of States and multi-
22 State transportation entities to determine how short
23 sea transportation can address congestion, bottle-
24 necks, and other interstate transportation chal-
25 lenges.

1 **“§ 55602. Cargo and shippers**

2 “(a) MEMORANDUMS OF AGREEMENT.—The Sec-
3 retary of Transportation shall enter into memorandums
4 of understanding with the heads of other Federal entities
5 to transport federally owned or generated cargo using a
6 short sea transportation project designated under section
7 55601 when practical or available.

8 “(b) SHORT-TERM INCENTIVES.—The Secretary
9 shall consult shippers and other participants in transpor-
10 tation logistics and develop proposals for short-term incen-
11 tives to encourage the use of short sea transportation.

12 **“§ 55603. Financing of short sea transportation**
13 **projects**

14 “(a) AUTHORITY TO MAKE LOAN GUARANTEE.—The
15 Secretary of Transportation, subject to the availability of
16 appropriations, may make a loan guarantee for the financ-
17 ing of the construction, reconstruction, or reconditioning
18 of a vessel that will be used for a short sea transportation
19 project designated under section 55601.

20 “(b) TERMS AND CONDITIONS.—In making a loan
21 guarantee under this section, the Secretary shall use the
22 authority, terms, and conditions that apply to a loan guar-
23 antee made under chapter 537.

24 “(c) GENERAL LIMITATIONS.—The total unpaid
25 principal amount of obligations guaranteed under this

1 chapter and outstanding at one time may not exceed
2 \$2,000,000,000.

3 “(d) FULL FAITH AND CREDIT.—The full faith and
4 credit of the United States Government is pledged to the
5 payment of a guarantee made under this chapter, for both
6 principal and interest, including interest (as may be pro-
7 vided for in the guarantee) accruing between the date of
8 default under a guaranteed obligation and the date of pay-
9 ment in full of the guarantee.

10 “(e) AUTHORIZATION OF APPROPRIATIONS.—There
11 is authorized to be appropriated \$25,000,000 to carry out
12 this section for each of fiscal years 2008 through 2011.

13 **“§ 55604. Interagency coordination**

14 “The Secretary of Transportation shall establish a
15 board to identify and seek solutions to impediments hin-
16 dering effective use of short sea transportation. The board
17 shall include representatives of the Environmental Protec-
18 tion Agency and other Federal, State, and local govern-
19 mental entities and private sector entities.

20 **“§ 55605. Research on short sea transportation**

21 “The Secretary of Transportation, in consultation
22 with the Administrator of the Environmental Protection
23 Agency, may conduct research on short sea transportation,
24 regarding—

1 “(1) the environmental and transportation ben-
2 efits to be derived from short sea transportation al-
3 ternatives for other forms of transportation;

4 “(2) technology, vessel design, and other im-
5 provements that would reduce emissions, increase
6 fuel economy, and lower costs of short sea transpor-
7 tation and increase the efficiency of intermodal
8 transfers; and

9 “(3) identify and seek solutions to impediments
10 to short sea transportation projects designated
11 under section 55601.

12 **“§ 55606. Short sea transportation defined**

13 “In this chapter, the term ‘short sea transportation’
14 means the carriage by vessel of cargo—

15 “(1) that is—

16 “(A) contained in intermodal cargo con-
17 tainers and loaded by crane on the vessel; or

18 “(B) loaded on the vessel by means of
19 wheeled technology; and

20 “(2) that is—

21 “(A) loaded at a port in the United States
22 and unloaded at another port in the United
23 States or a port in Canada located in the Great
24 Lakes Saint Lawrence Seaway System; or

1 “(B) loaded at a port in Canada located in
 2 the Great Lakes Saint Lawrence Seaway Sys-
 3 tem and unloaded at a port in the United
 4 States.”.

5 (b) CLERICAL AMENDMENT.—The table of chapters
 6 at the beginning of subtitle V of such title is amended
 7 by inserting after the item relating to chapter 555 the fol-
 8 lowing:

“556. Short Sea Transportation55601”.

9 (c) REGULATIONS.—

10 (1) INTERIM REGULATIONS.—Not later than
 11 December 31, 2007, the Secretary of Transportation
 12 shall issue temporary regulations to implement the
 13 program under this section. Subchapter II of chap-
 14 ter 5 of title 5, United States Code, does not apply
 15 to a temporary regulation issued under this para-
 16 graph or to an amendment to such a temporary reg-
 17 ulation.

18 (2) FINAL REGULATIONS.—Not later than Oc-
 19 tober 1, 2008, the Secretary shall issue final regula-
 20 tions to implement the program under this section.

21 **SEC. 8402. SHORT SEA SHIPPING ELIGIBILITY FOR CAPITAL**
 22 **CONSTRUCTION FUND.**

23 (a) DEFINITION OF QUALIFIED VESSEL.—Section
 24 53501 of title 46, United States Code, is amended—

1 (1) in paragraph (5)(A)(iii) by striking “or non-
2 contiguous domestic” and inserting “noncontiguous
3 domestic, or short sea transportation trade”; and

4 (2) by inserting after paragraph (6) the fol-
5 lowing:

6 “(7) SHORT SEA TRANSPORTATION TRADE.—

7 The term ‘short sea transportation trade’ means the
8 carriage by vessel of cargo—

9 “(A) that is—

10 “(i) contained in intermodal cargo
11 containers and loaded by crane on the ves-
12 sel; or

13 “(ii) loaded on the vessel by means of
14 wheeled technology; and

15 “(B) that is—

16 “(i) loaded at a port in the United
17 States and unloaded at another port in the
18 United States or a port in Canada located
19 in the Great Lakes Saint Lawrence Sea-
20 way System; or

21 “(ii) loaded at a port in Canada lo-
22 cated in the Great Lakes Saint Lawrence
23 Seaway System and unloaded at a port in
24 the United States.”.

1 (b) ALLOWABLE PURPOSE.—Section 53503(b) of
2 such title is amended by striking “or noncontiguous do-
3 mestic trade” and inserting “noncontiguous domestic, or
4 short sea transportation trade”.

5 **SEC. 8403. REPORT.**

6 Not later than one year after the date of enactment
7 of this Act, the Secretary of Transportation, in consulta-
8 tion with the Administrator of the Environmental Protec-
9 tion Agency, shall submit to the Committee on Transpor-
10 tation and Infrastructure of the House of Representatives
11 and the Committee on Commerce, Science, and Transpor-
12 tation of the Senate a report on the short sea transpor-
13 tation program established under the amendments made
14 by section 8401. The report shall include a description of
15 the activities conducted under the program, and any rec-
16 ommendations for further legislative or administrative ac-
17 tion that the Secretary considers appropriate.

18 **PART 2—MARITIME POLLUTION**

19 **SEC. 8451. REFERENCES.**

20 Wherever in this part an amendment or repeal is ex-
21 pressed in terms of an amendment to or a repeal of a sec-
22 tion or other provision, the reference shall be considered
23 to be made to a section or other provision of the Act to
24 Prevent Pollution from Ships (33 U.S.C. 1901 et seq.).

1 **SEC. 8452. DEFINITIONS.**

2 Section 2(a) (33 U.S.C. 1901(a)) is amended—

3 (1) by redesignating paragraphs (1) through
4 (12) as paragraphs (2) through (13), respectively;

5 (2) by inserting before paragraph (2) (as so re-
6 designated) the following:

7 “(1) ‘Administrator’ means the Administrator
8 of the Environmental Protection Agency.”;

9 (3) in paragraph (5) (as so redesignated) by
10 striking “and V” and inserting “V, and VI”;

11 (4) in paragraph (6) (as so redesignated) by
12 striking “‘discharge’ and ‘garbage’ and ‘harmful
13 substance’ and ‘incident’” and inserting “‘dis-
14 charge’, ‘emission’, ‘garbage’, ‘harmful substance’,
15 and ‘incident’”; and

16 (5) by redesignating paragraphs (7) through
17 (13) (as redesignated) as paragraphs (8) through
18 (14), respectively, and inserting after paragraph (6)
19 (as redesignated) the following:

20 “(7) ‘navigable waters’ includes the territorial
21 sea of the United States (as defined in Presidential
22 Proclamation 5928 of December 27, 1988) and the
23 internal waters of the United States;”.

24 **SEC. 8453. APPLICABILITY.**

25 Section 3 (33 U.S.C. 1902) is amended—

26 (1) in subsection (a)—

1 (A) by striking “and” at the end of para-
2 graph (3);

3 (B) by striking the period at the end of
4 paragraph (4) and inserting “; and”; and

5 (C) by adding at the end the following:

6 “(5) with respect to Annex VI to the Conven-
7 tion, and other than with respect to a ship referred
8 to in paragraph (1)—

9 “(A) to a ship that is in a port, shipyard,
10 offshore terminal, or the internal waters of the
11 United States;

12 “(B) to a ship that is bound for, or depart-
13 ing from, a port, shipyard, offshore terminal, or
14 the internal waters of the United States, and is
15 in—

16 “(i) the navigable waters of the
17 United States;

18 “(ii) an emission control area des-
19 ignated pursuant to section 4; or

20 “(iii) any other area that the Admin-
21 istrator, in consultation with the Secretary
22 and each State that is adjacent to any part
23 of the proposed area, has designated by
24 order as being an area from which emis-
25 sions from ships are of concern with re-

1 spect to protection of public health, wel-
2 fare, or the environment;

3 “(C) to a ship that is entitled to fly the
4 flag of, or operating under the authority of, a
5 party to Annex VI, and is in—

6 “(i) the navigable waters of the
7 United States;

8 “(ii) an emission control area des-
9 ignated under section 4; or

10 “(iii) any other area that the Admin-
11 istrator, in consultation with the Secretary
12 and each State that is adjacent to any part
13 of the proposed area, has designated by
14 order as being an area from which emis-
15 sions from ships are of concern with re-
16 spect to protection of public health, wel-
17 fare, or the environment; and

18 “(D) to the extent consistent with inter-
19 national law, to any other ship that is in—

20 “(i) the exclusive economic zone of the
21 United States;

22 “(ii) the navigable waters of the
23 United States;

24 “(iii) an emission control area des-
25 ignated under section 4; or

1 “(iv) any other area that the Adminis-
2 trator, in consultation with the Secretary
3 and each State in which any part of the
4 area is located, has designated by order as
5 being an area from which emissions from
6 ships are of concern with respect to protec-
7 tion of public health, welfare, or the envi-
8 ronment.”;

9 (2) in subsection (b)—

10 (A) in paragraph (1) by striking “para-
11 graph (2)” and inserting “paragraphs (2) and
12 (3)”; and

13 (B) by adding at the end the following:

14 “(3) With respect to Annex VI the Administrator, or
15 the Secretary, as relevant to their authorities pursuant to
16 this Act, may determine that some or all of the require-
17 ments under this Act shall apply to one or more classes
18 of public vessels, except that such a determination by the
19 Administrator shall have no effect unless the head of the
20 Department or agency under which the vessels operate
21 concurs in the determination. This paragraph does not
22 apply during time of war or during a declared national
23 emergency.”;

24 (3) by redesignating subsections (c) through (g)
25 as subsections (d) through (h), respectively;

1 (4) by inserting after subsection (b) the fol-
2 lowing:

3 “(c) APPLICATION TO OTHER PERSONS.—This Act
4 shall apply to all persons to the extent necessary to ensure
5 compliance with Annex VI to the Convention.”; and

6 (5) in subsection (e), as redesignated—

7 (A) by inserting “or the Administrator,
8 consistent with section 4 of this Act,” after
9 “Secretary”;

10 (B) by striking “of section (3)” and insert-
11 ing “of this section”; and

12 (C) by striking “Protocol, including regula-
13 tions conforming to and giving effect to the re-
14 quirements of Annex V” and inserting “Pro-
15 tocol (or the applicable Annex), including regu-
16 lations conforming to and giving effect to the
17 requirements of Annex V and Annex VI”.

18 **SEC. 8454. ADMINISTRATION AND ENFORCEMENT.**

19 Section 4 (33 U.S.C. 1903) is amended—

20 (1) by redesignating subsections (b) and (c) as
21 subsections (c) and (d), respectively;

22 (2) by inserting after subsection (a) the fol-
23 lowing:

24 “(b) DUTY OF THE ADMINISTRATOR.—In addition to
25 other duties specified in this Act, the Administrator and

1 the Secretary, respectively, shall have the following duties
2 and authorities:

3 “(1) The Administrator shall, and no other per-
4 son may, issue Engine International Air Pollution
5 Prevention certificates in accordance with Annex VI
6 and the International Maritime Organization’s Tech-
7 nical Code on Control of Emissions of Nitrogen Ox-
8 ides from Marine Diesel Engines, on behalf of the
9 United States for a vessel of the United States as
10 that term is defined in section 116 of title 46,
11 United States Code. The issuance of Engine Inter-
12 national Air Pollution Prevention certificates shall
13 be consistent with any applicable requirements of
14 the Clean Air Act (42 U.S.C. 7401 et seq.) or regu-
15 lations prescribed under that Act.

16 “(2) The Administrator shall have authority to
17 administer regulations 12, 13, 14, 15, 16, 17, 18,
18 and 19 of Annex VI to the Convention.

19 “(3) The Administrator shall, only as specified
20 in section 8(f), have authority to enforce Annex VI
21 of the Convention.”; and

22 (3) in subsection (c), as redesignated—

23 (A) by redesignating paragraph (2) as
24 paragraph (4);

1 (B) by inserting after paragraph (1) the
2 following:

3 “(2) In addition to the authority the Secretary has
4 to prescribe regulations under this Act, the Administrator
5 shall also prescribe any necessary or desired regulations
6 to carry out the provisions of regulations 12, 13, 14, 15,
7 16, 17, 18, and 19 of Annex VI to the Convention.

8 “(3) In prescribing any regulations under this sec-
9 tion, the Secretary and the Administrator shall consult
10 with each other, and with respect to regulation 19, with
11 the Secretary of the Interior.”; and

12 (C) by adding at the end the following:

13 “(5) No standard issued by any person or Federal
14 authority, with respect to emissions from tank vessels sub-
15 ject to regulation 15 of Annex VI to the Convention, shall
16 be effective until 6 months after the required notification
17 to the International Maritime Organization by the Sec-
18 retary.”.

19 **SEC. 8455. CERTIFICATES.**

20 Section 5 (33 U.S.C. 1904) is amended—

21 (1) in subsection (a) by striking “The Sec-
22 retary” and inserting “Except as provided in section
23 4(b)(1), the Secretary”;

24 (2) in subsection (b) by striking “Secretary
25 under the authority of the MARPOL protocol.” and

1 inserting “Secretary or the Administrator under the
2 authority of this Act.”; and

3 (3) in subsection (e) by striking “environment.”
4 and inserting “environment or the public health and
5 welfare.”.

6 **SEC. 8456. RECEPTION FACILITIES.**

7 Section 6 (33 U.S.C. 1905) is amended—

8 (1) in subsection (a) by adding at the end the
9 following:

10 “(3) The Secretary and the Administrator, after con-
11 sulting with appropriate Federal agencies, shall jointly
12 prescribe regulations setting criteria for determining the
13 adequacy of reception facilities for receiving ozone deplet-
14 ing substances, equipment containing such substances,
15 and exhaust gas cleaning residues at a port or terminal,
16 and stating any additional measures and requirements as
17 are appropriate to ensure such adequacy. Persons in
18 charge of ports and terminals shall provide reception fa-
19 cilities, or ensure that reception facilities are available, in
20 accordance with those regulations. The Secretary and the
21 Administrator may jointly prescribe regulations to certify,
22 and may issue certificates to the effect, that a port’s or
23 terminal’s facilities for receiving ozone depleting sub-
24 stances, equipment containing such substances, and ex-
25 haust gas cleaning residues from ships are adequate.”;

1 (2) in subsection (b) by inserting “or the Ad-
2 ministrator” after “Secretary”;

3 (3) in subsection (e) by striking paragraph (2)
4 and inserting the following:

5 “(2) The Secretary may deny the entry of a ship to
6 a port or terminal required by the MARPOL Protocol, this
7 Act, or regulations prescribed under this section relating
8 to the provision of adequate reception facilities for gar-
9 bage, ozone depleting substances, equipment containing
10 those substances, or exhaust gas cleaning residues, if the
11 port or terminal is not in compliance with the MARPOL
12 Protocol, this Act, or those regulations.”;

13 (4) in subsection (f)(1) by striking “Secretary
14 is” and inserting “Secretary and the Administrator
15 are”; and

16 (5) in subsection (f)(2) by striking “(A)”.

17 **SEC. 8457. INSPECTIONS.**

18 Section 8(f) (33 U.S.C. 1907(f)) is amended to read
19 as follows:

20 “(f)(1) The Secretary may inspect a ship to which
21 this Act applies as provided under section 3(a)(5), to
22 verify whether the ship is in compliance with Annex VI
23 to the Convention and this Act.

24 “(2) If an inspection under this subsection or any
25 other information indicates that a violation has occurred,

1 the Secretary, or the Administrator in a matter referred
2 by the Secretary, may undertake enforcement action under
3 this section.

4 “(3) Notwithstanding subsection (b) and paragraph
5 (2) of this subsection, the Administrator shall have all of
6 the authorities of the Secretary, as specified in subsection
7 (b) of this section, for the purposes of enforcing regula-
8 tions 17 and 18 of Annex VI to the Convention to the
9 extent that shoreside violations are the subject of the ac-
10 tion and in any other matter referred to the Administrator
11 by the Secretary.”.

12 **SEC. 8458. AMENDMENTS TO THE PROTOCOL.**

13 Section 10(b) (33 U.S.C. 1909(b)) is amended by in-
14 serting “or the Administrator as provided for in this Act,”
15 after “Secretary,”.

16 **SEC. 8459. PENALTIES.**

17 Section 9 (33 U.S.C. 1908) is amended—

18 (1) by striking “Protocol,,” each place it ap-
19 pears and inserting “Protocol,”;

20 (2) in subsection (b) by inserting “, or the Ad-
21 ministrator as provided for in this Act” after “Sec-
22 retary” the first place it appears;

23 (3) in subsection (b)(2), by inserting “, or the
24 Administrator as provided for in this Act,” after
25 “Secretary”;

1 (4) in the matter after paragraph (2) of sub-
2 section (b)—

3 (A) by inserting “, or the Administrator as
4 provided for in this Act” after “Secretary” the
5 first place it appears; and

6 (B) by inserting “, or the Administrator as
7 provided for in this Act,” after “Secretary” the
8 second and third places it appears;

9 (5) in subsection (c) by inserting “, or the Ad-
10 ministrator as provided for in this Act,” after “Sec-
11 retary” each place it appears; and

12 (6) in subsection (f) by inserting “, or the Ad-
13 ministrator as provided for in this Act” after “Sec-
14 retary” the first place appears.

15 **SEC. 8460. EFFECT ON OTHER LAWS.**

16 Section 15 (33 U.S.C. 1911) is amended to read as
17 follows:

18 **“SEC. 15. EFFECT ON OTHER LAWS.**

19 “Authorities, requirements, and remedies of this Act
20 supplement and neither amend nor repeal any other au-
21 thorities, requirements, or remedies conferred by any
22 other provision of law. Nothing in this Act shall limit,
23 deny, amend, modify, or repeal any other authority, re-
24 quirement, or remedy available to the United States or

1 any other person, except as expressly provided in this
2 Act.”.

3 **Subtitle E—Aviation**

4 **SEC. 8501. ENVIRONMENTAL MITIGATION PILOT PROGRAM.**

5 (a) ESTABLISHMENT.—The Secretary of Transpor-
6 tation, in coordination with the Administrator of the Envi-
7 ronmental Protection Agency, shall establish a pilot pro-
8 gram to carry out not more than 6 environmental mitiga-
9 tion demonstration projects at public-use airports.

10 (b) GRANTS.—In implementing the program, the Sec-
11 retary may make a grant to the sponsor of a public-use
12 airport from funds apportioned under section
13 47117(e)(1)(A) of title 49, United States Code, to carry
14 out an environmental mitigation demonstration project to
15 measurably reduce or mitigate aviation impacts on noise,
16 air quality, or water quality in the vicinity of the airport.

17 (c) ELIGIBILITY FOR PASSENGER FACILITY FEES.—
18 An environmental mitigation demonstration project that
19 receives funds made available under this section may be
20 considered an eligible airport-related project for purposes
21 of section 40117 of such title.

22 (d) SELECTION CRITERIA.—In selecting among ap-
23 plicants for participation in the program, the Secretary
24 shall give priority consideration to applicants proposing to

1 carry out environmental mitigation demonstration projects
2 that will—

3 (1) achieve the greatest reductions in aircraft
4 noise, airport emissions, or airport water quality im-
5 pacts either on an absolute basis or on a per dollar
6 of funds expended basis; and

7 (2) be implemented by an eligible consortium.

8 (e) FEDERAL SHARE.—Notwithstanding any provi-
9 sion of subchapter I of chapter 471 of such title, the
10 United States Government share of allowable project costs
11 of an environmental mitigation demonstration project car-
12 ried out under this section shall be 50 percent.

13 (f) MAXIMUM AMOUNT.—The Secretary may not
14 make grants for a single environmental mitigation dem-
15 onstration project under this section in a total amount
16 that exceeds \$2,500,000.

17 (g) PUBLICATION OF INFORMATION.—The Secretary
18 may develop and publish information on the results of en-
19 vironmental mitigation demonstration projects carried out
20 under this section, including information identifying best
21 practices for reducing or mitigating aviation impacts on
22 noise, air quality, or water quality in the vicinity of air-
23 ports.

24 (h) DEFINITIONS.—In this section, the following defi-
25 nitions apply:

1 (1) ELIGIBLE CONSORTIUM.—The term “eligi-
2 ble consortium” means a consortium of 2 or more of
3 the following entities:

4 (A) A business incorporated in the United
5 States.

6 (B) A public or private educational or re-
7 search organization located in the United
8 States.

9 (C) An entity of a State or local govern-
10 ment.

11 (D) A Federal laboratory.

12 (2) ENVIRONMENTAL MITIGATION DEMONSTRA-
13 TION PROJECT.—The term “environmental mitiga-
14 tion demonstration project” means a project that—

15 (A) demonstrates at a public-use airport
16 environmental mitigation techniques or tech-
17 nologies with associated benefits, which have al-
18 ready been proven in laboratory demonstra-
19 tions;

20 (B) utilizes methods for efficient adapta-
21 tion or integration of innovative concepts to air-
22 port operations; and

23 (C) demonstrates whether a technique or
24 technology for environmental mitigation identi-
25 fied in research is—

- 1 (i) practical to implement at or near
2 multiple public-use airports; and
3 (ii) capable of reducing noise, airport
4 emissions, greenhouse gas emissions, or
5 water quality impacts in measurably sig-
6 nificant amounts.

7 **Subtitle F—Public Buildings**

8 **PART 1—GENERAL SERVICES ADMINISTRATION**

9 **SEC. 8601. PUBLIC BUILDING ENERGY EFFICIENT AND RE-** 10 **NEWABLE ENERGY SYSTEMS.**

11 (a) ESTIMATE OF ENERGY PERFORMANCE IN PRO-
12 SPECTUS.—Section 3307(b) of title 40, United States
13 Code, is amended—

14 (1) by striking “and” at the end of paragraph
15 (5);

16 (2) by striking the period at the end of para-
17 graph (6) and inserting “; and”; and

18 (3) by inserting after paragraph (6) the fol-
19 lowing:

20 “(7) with respect to any prospectus for the con-
21 struction, alteration, or acquisition of any building
22 or space to be leased, an estimate of the future en-
23 ergy performance of the building or space and a spe-
24 cific description of the use of energy efficient and re-

1 newable energy systems, including photovoltaic sys-
2 tems, in carrying out the project.”.

3 (b) MINIMUM PERFORMANCE REQUIREMENTS FOR
4 LEASED SPACE.—Section 3307 of such of title is amend-
5 ed—

6 (1) by redesignating subsections (f) and (g) as
7 subsections (g) and (h), respectively; and

8 (2) by inserting after subsection (e) the fol-
9 lowing:

10 “(f) MINIMUM PERFORMANCE REQUIREMENTS FOR
11 LEASED SPACE.—With respect to space to be leased, the
12 Administrator shall include, to the maximum extent prac-
13 ticable, minimum performance requirements requiring en-
14 ergy efficiency and the use of renewable energy.”.

15 (c) USE OF ENERGY EFFICIENT LIGHTING FIX-
16 TURES AND BULBS.—

17 (1) IN GENERAL.—Chapter 33 of such title is
18 amended—

19 (A) by redesignating sections 3313, 3314,
20 and 3315 as sections 3315, 3316, and 3317, re-
21 spectively; and

22 (B) by inserting after section 3312 the fol-
23 lowing:

1 **“§ 3313. Use of energy efficient lighting fixtures and**
2 **bulbs**

3 “(a) CONSTRUCTION, ALTERATION, AND ACQUI-
4 TION OF PUBLIC BUILDINGS.—Each public building con-
5 structed, altered, or acquired by the Administrator of Gen-
6 eral Services shall be equipped, to the maximum extent
7 feasible as determined by the Administrator, with lighting
8 fixtures and bulbs that are energy efficient.

9 “(b) MAINTENANCE OF PUBLIC BUILDINGS.—Each
10 lighting fixture or bulb that is replaced by the Adminis-
11 trator in the normal course of maintenance of public build-
12 ings shall be replaced, to the maximum extent feasible,
13 with a lighting fixture or bulb that is energy efficient.

14 “(c) CONSIDERATIONS.—In making a determination
15 under this section concerning the feasibility of installing
16 a lighting fixture or bulb that is energy efficient, the Ad-
17 ministrator shall consider—

18 “(1) the life-cycle cost effectiveness of the fix-
19 ture or bulb;

20 “(2) the compatibility of the fixture or bulb
21 with existing equipment;

22 “(3) whether use of the fixture or bulb could re-
23 sult in interference with productivity;

24 “(4) the aesthetics relating to use of the fixture
25 or bulb; and

1 “(5) such other factors as the Administrator
2 determines appropriate.

3 “(d) ENERGY STAR.—A lighting fixture or bulb shall
4 be treated as being energy efficient for purposes of this
5 section if—

6 “(1) the fixture or bulb is certified under the
7 Energy Star program established by section 324A of
8 the Energy Policy and Conservation Act (42 U.S.C.
9 6294a); or

10 “(2) the Administrator has otherwise deter-
11 mined that the fixture or bulb is energy efficient.

12 “(e) APPLICABILITY OF BUY AMERICAN ACT.—Ac-
13 quisitions carried out pursuant to this section shall be sub-
14 ject to the requirements of the Buy American Act (41
15 U.S.C. 10c et seq.).

16 “(f) EFFECTIVE DATE.—The requirements of sub-
17 sections (a) and (b) shall take effect one year after the
18 date of enactment of this subsection.”.

19 (2) CLERICAL AMENDMENT.—The analysis for
20 such chapter is amended by striking the items relat-
21 ing to sections 3313, 3314, and 3315 and inserting
22 the following:

“3313. Use of energy efficient lighting fixtures and bulbs.

“3314. Maximum period for utility services contracts.

“3315. Delegation.

“3316. Report to Congress.

“3317. Certain authority not affected.”.

1 (d) MAXIMUM PERIOD FOR UTILITY SERVICE CON-
2 TRACTS.—Such chapter is further amended by inserting
3 after section 3313 (as inserted by subsection (c)(1) of this
4 section) the following:

5 **“§ 3314. Maximum period for utility service contracts**

6 “Notwithstanding section 501(b)(1)(B), the Adminis-
7 trator of General Services may contract for public utility
8 services for a period of not more than 30 years if cost
9 effective and necessary to promote the use of energy effi-
10 cient and renewable energy systems, including photovoltaic
11 systems.”.

12 (e) EVALUATION FACTOR.—Section 3310 of such
13 title is amended—

14 (1) by redesignating paragraphs (3), (4), and
15 (5) as paragraphs (4), (5), and (6), respectively; and

16 (2) by inserting after paragraph (2) the fol-
17 lowing:

18 “(3) shall include in the solicitation for any
19 lease requiring a prospectus under section 3307 an
20 evaluation factor considering the extent to which the
21 offeror will promote energy efficiency and the use of
22 renewable energy;”.

1 **SEC. 8602. PUBLIC BUILDING LIFE-CYCLE COSTS.**

2 Section 544(a)(1) of the National Energy Conserva-
3 tion Policy Act (42 U.S.C. 8254(a)(1)) is amended by
4 striking “25” and inserting “40”.

5 **SEC. 8603. INSTALLATION OF PHOTOVOLTAIC SYSTEM AT**
6 **DEPARTMENT OF ENERGY HEADQUARTERS**
7 **BUILDING.**

8 (a) IN GENERAL.—The Administrator of General
9 Services shall install a photovoltaic system, as set forth
10 in the Sun Wall Design Project, for the headquarters
11 building of the Department of Energy located at 1000
12 Independence Avenue, SW., Washington, DC, commonly
13 known as the Forrestal Building.

14 (b) FUNDING.—There shall be available from the
15 Federal Buildings Fund established by section 592 of title
16 40, United States Code, \$30,000,000 to carry out this sec-
17 tion. Such sums shall be derived from the unobligated bal-
18 ance of amounts made available from the Fund for fiscal
19 year 2007, and prior fiscal years, for repairs and alter-
20 nations and other activities (excluding amounts made
21 available for the energy program). Such sums shall remain
22 available until expended.

23 (c) OBLIGATION OF FUNDS.—None of the funds
24 made available pursuant to subsection (b) may be obli-
25 gated prior to September 30, 2007.

PART 2—COAST GUARD**SEC. 8631. PROHIBITION ON INCANDESCENT LAMPS BY
COAST GUARD.**

(a) PROHIBITION.—Except as provided by subsection (b), on and after January 1, 2009, a general service incandescent lamp shall not be purchased or installed in a Coast Guard facility by or on behalf of the Coast Guard.

(b) EXCEPTION.—A general service incandescent lamp may be purchased, installed, and used in a Coast Guard facility whenever the application of a general service incandescent lamp is—

(1) necessary due to purpose or design, including medical, security, and industrial applications;

(2) reasonable due to the architectural or historical value of a light fixture installed before January 1, 2009; or

(3) the Commandant of the Coast Guard determines that operational requirements necessitate the use of a general service incandescent lamp.

(c) LIMITATION.—In this section, the term “facility” does not include a vessel or aircraft of the Coast Guard.

1 **PART 3—ARCHITECT OF THE CAPITOL**

2 **SEC. 8651. CAPITOL COMPLEX PHOTOVOLTAIC ROOF FEASI-**
3 **BILITY STUDY.**

4 (a) STUDY.—The Architect of the Capitol may per-
5 form a feasibility study regarding construction of a photo-
6 voltaic roof for the Rayburn House Office Building.

7 (b) REPORT.—Not later than 6 months after the date
8 of enactment of this Act, the Architect of the Capitol shall
9 transmit to the Committee on Transportation and Infra-
10 structure of the House of Representatives a report on the
11 results of the feasibility study and recommendations re-
12 garding construction of a photovoltaic roof for the building
13 referred to in subsection (a).

14 (c) AUTHORIZATION OF APPROPRIATIONS.—There
15 are authorized to be appropriated to carry out this section
16 such sums as may be necessary for fiscal year 2008.

17 **SEC. 8652. CAPITOL COMPLEX E-85 REFUELING STATION.**

18 (a) CONSTRUCTION.—The Architect of the Capitol
19 may construct a fuel tank and pumping system for E-
20 85 fuel at or within close proximity to the Capitol Grounds
21 Fuel Station.

22 (b) USE.—The E-85 fuel tank and pumping system
23 shall be available for use by all legislative branch vehicles
24 capable of operating with E-85 fuel, subject to such other
25 legislative branch agencies reimbursing the Architect of

1 the Capitol for the costs of E-85 fuel used by such other
2 legislative branch vehicles.

3 (c) AUTHORIZATION OF APPROPRIATIONS.—There
4 are authorized to be appropriated to carry out this section
5 such sums as may be necessary for fiscal year 2008.

6 **SEC. 8653. ENERGY AND ENVIRONMENTAL MEASURES IN**
7 **CAPITOL COMPLEX MASTER PLAN.**

8 (a) IN GENERAL.—To the maximum extent prac-
9 ticable, the Architect of the Capitol shall include energy
10 efficiency measures, climate change mitigation measures,
11 and other appropriate environmental measures in the Cap-
12 itol Complex Master Plan.

13 (b) REPORT.—Not later than 6 months after the date
14 of enactment of this Act, the Architect of the Capitol shall
15 submit to the Committee on Transportation and Infra-
16 structure of the House of Representatives and the Com-
17 mittee on Rules of the Senate a report on the energy effi-
18 ciency measures, climate change mitigation measures, and
19 other appropriate environmental measures included in the
20 Capitol Complex Master Plan pursuant to subsection (a).

21 **SEC. 8654. CAPITOL POWER PLANT.**

22 (a) IN GENERAL.—For the purpose of reducing car-
23 bon dioxide emissions, the Architect of the Capitol shall
24 install technologies for the capture and storage or use of

1 carbon dioxide emitted from the Capitol Power plant as
2 a result of burning coal.

3 (b) CAPITOL POWER PLANT DEFINED.—In this sec-
4 tion, the term “Capitol power plant” means the power
5 plant constructed in the vicinity of the Capitol Complex
6 in the District of Columbia pursuant to the Act of April
7 28, 1904 (33 Stat. 479, chapter 1762), and designated
8 under the Act of March 4, 1911 (2 U.S.C. 2162).

9 **SEC. 8655. PROMOTING MAXIMUM EFFICIENCY IN OPER-**
10 **ATION OF CAPITOL POWER PLANT.**

11 (a) STEAM BOILERS.—

12 (1) IN GENERAL.—The Architect of the Capitol
13 shall take such steps as may be necessary to operate
14 the steam boilers at the Capitol Power Plant in the
15 most energy efficient manner possible to minimize
16 carbon emissions and operating costs, including ad-
17 justing steam pressures and adjusting the operation
18 of the boilers to take into account variations in de-
19 mand, including seasonality, for the use of the sys-
20 tem.

21 (2) EFFECTIVE DATE.—The Architect shall im-
22 plement the steps required under paragraph (1) not
23 later than 30 days after the date of the enactment
24 of this Act.

25 (b) CHILLER PLANT.—

1 (1) IN GENERAL.—The Architect of the Capitol
2 shall take such steps as may be necessary to operate
3 the chiller plant at the Capitol Power Plant in the
4 most energy efficient manner possible to minimize
5 carbon emissions and operating costs, including ad-
6 justing water temperatures and adjusting the oper-
7 ation of the chillers to take into account variations
8 in demand, including seasonality, for the use of the
9 system.

10 (2) EFFECTIVE DATE.—The Architect shall im-
11 plement the steps required under paragraph (1) not
12 later than 30 days after the date of the enactment
13 of this Act.

14 (c) METERS.—Not later than 90 days after the date
15 of the enactment of this Act, the Architect of the Capitol
16 shall evaluate the accuracy of the meters in use at the
17 Capitol Power Plant and correct them as necessary.

18 (d) REPORT ON IMPLEMENTATION.—Not later than
19 180 days after the date of the enactment of this Act, the
20 Architect of the Capitol, in conjunction with the Chief Ad-
21 ministrative Officer of the House of Representatives, shall
22 complete the implementation of the requirements of this
23 section and submit a report describing the actions taken
24 and the energy efficiencies achieved to the Committee on
25 Transportation and Infrastructure of the House of Rep-

1 representatives, the Committee on Commerce, Science, and
2 Transportation of the Senate, the Committee on House
3 Administration of the House of Representatives, and the
4 Committee on Rules and Administration of the Senate.

5 **SEC. 8656. PROMOTING MAXIMUM EFFICIENCY IN OPER-**
6 **ATION OF CAPITOL POWER PLANT.**

7 (a) STEAM BOILERS AND CHILLER PLANT.—

8 (1) IN GENERAL.—The Architect of the Capitol
9 shall take such steps as may be necessary to operate
10 the steam boilers and the chiller plant at the Capitol
11 Power Plant in the most energy efficient manner
12 possible to minimize carbon emissions and operating
13 costs, including adjusting steam pressures, adjusting
14 the operation of the boilers, adjusting water tem-
15 peratures, and adjusting the operation of the chillers
16 to take into account variations in demand, including
17 seasonality, for the use of the systems.

18 (2) EFFECTIVE DATE.—The Architect shall im-
19 plement the steps required under paragraph (1) not
20 later than 30 days after the date of the enactment
21 of this Act.

22 (b) METERS.—Not later than 90 days after the date
23 of the enactment of this Act, the Architect of the Capitol
24 shall evaluate the accuracy of the meters in use at the
25 Capitol Power Plant and correct them as necessary.

1 (c) REPORT ON IMPLEMENTATION.—Not later than
2 180 days after the date of the enactment of this Act, the
3 Architect of the Capitol, in conjunction with the Chief Ad-
4 ministrative Officer of the House of Representatives, shall
5 complete the implementation of the requirements of this
6 section and submit a report describing the actions taken
7 and the energy efficiencies achieved to the Committee on
8 Transportation and Infrastructure of the House of Rep-
9 resentatives, the Committee on Commerce, Science, and
10 Transportation of the Senate, the Committee on House
11 Administration of the House of Representatives, and the
12 Committee on Rules and Administration of the Senate.

13 **Subtitle G—Water Resources and**
14 **Emergency Management Pre-**
15 **paredness**

16 **PART 1—WATER RESOURCES**

17 **SEC. 8701. POLICY OF THE UNITED STATES.**

18 It is the policy of the United States that all Federal
19 water resources projects—

20 (1) reflect national priorities for flood damage
21 reduction, navigation, ecosystem restoration, and
22 hazard mitigation and consider the future impacts of
23 increased hurricanes, droughts, and other climate
24 change-related weather events;

1 (2) avoid the unwise use of floodplains, mini-
2 mize vulnerabilities in any case in which a floodplain
3 must be used, protect and restore the extent and
4 functions of natural systems, and mitigate any un-
5 avoidable damage to aquatic natural system; and

6 (3) to the maximum extent possible, avoid im-
7 pacts to wetlands, which create natural buffers, help
8 filter water, serve as recharge areas for aquifers, re-
9 duce floods and erosion, and provide valuable plant
10 and animal habitat.

11 **SEC. 8702. 21ST CENTURY WATER COMMISSION.**

12 (a) ESTABLISHMENT.—There is established a com-
13 mission to be known as the 21st Century Water Commis-
14 sion (in this section referred to as the “Commission”).

15 (b) DUTIES.—The duties of the Commission shall be
16 to—

17 (1) use existing water assessments and conduct
18 such additional studies and assessments as may be
19 necessary to project—

20 (A) future water supply and demand;

21 (B) impacts of climate change to our Na-
22 tion’s flood risk and water availability; and

23 (C) associated impacts of climate change
24 on water quality;

1 (2)(A) study current water management pro-
2 grams of Federal, interstate, State, and local agen-
3 cies and private sector entities directed at increasing
4 water supplies and improving the availability, reli-
5 ability, and quality of freshwater resources; and

6 (B) evaluate such programs' hazard mitigation
7 strategies and contingency planning in light of cli-
8 mate change impacts, including sea level rise, flood-
9 ing, and droughts; and

10 (3) consult with representatives of such agen-
11 cies and entities to develop recommendations, con-
12 sistent with laws, treaties, decrees, and interstate
13 compacts, for a comprehensive water strategy to—

14 (A) recognize the primary role of States in
15 adjudicating, administering, and regulating
16 water rights and water uses;

17 (B) identify incentives intended to ensure
18 an adequate and dependable supply of water to
19 meet the needs of the United States for the
20 next 50 years, including the future impacts of
21 climate change on water supply and quality;

22 (C) eliminate duplication and conflict
23 among Federal governmental programs;

24 (D) consider all available technologies (in-
25 cluding climate change predictions, advanced

1 modeling and mapping of wetlands, floodplains,
2 and other critical areas) and other methods to
3 optimize water supply reliability, availability,
4 and quality, while safeguarding and enhancing
5 the environment and planning for the potential
6 impacts of climate change on water quality,
7 water supply, flood and storm damage reduc-
8 tion, and ecosystem health;

9 (E) recommend means of capturing excess
10 water and flood water for conservation and use
11 in the event of a drought;

12 (F) identify adaptation techniques, or fur-
13 ther research needs of adaptation techniques,
14 for effectively conserving freshwater and coastal
15 systems as they respond to climate change;

16 (G) suggest financing options, incentives,
17 and strategies for development of comprehen-
18 sive water management plans, holistically de-
19 signed water resources projects, conservation of
20 existing water resources infrastructure (except
21 drinking water infrastructure) and to increase
22 the use of nonstructural elements (including
23 green infrastructure and low impact develop-
24 ment techniques);

1 (H) suggest strategies for avoiding in-
2 creased mandates on State and local govern-
3 ments;

4 (I) suggest strategies for using best avail-
5 able climate science in projections of future
6 flood and drought risk, and for developing haz-
7 ard mitigation strategies to protect water qual-
8 ity, in extreme weather conditions caused by cli-
9 mate change;

10 (J) identify policies that encourage low im-
11 pact development, especially in areas near high
12 priority aquatic systems;

13 (K) suggest strategies for encouraging the
14 use of, and reducing biases against, non-
15 structural elements (including green infrastruc-
16 ture and low impact development techniques)
17 when managing stormwater, including features
18 that—

19 (i) preserve and restore natural proc-
20 esses, landforms (such as floodplains), nat-
21 ural vegetated stream side buffers, wet-
22 lands, or other topographical features that
23 can slow, filter, and naturally store
24 stormwater runoff and flood waters for fu-

ture water supply and recharge of natural
aquifers;

(ii) utilize natural design techniques
that infiltrate, filter, store, evaporate, and
detain water close to its source; or

(iii) minimize the use of impervious
surfaces in order to slow or infiltrate pre-
cipitation;

(L) suggest strategies for addressing in-
creased sewage overflow problems due to chang-
ing storm dynamics and the impact of aging
stormwater and wastewater infrastructure, pop-
ulation growth, and urban sprawl;

(M) promote environmental restoration
projects that reestablish natural processes; and

(N) identify opportunities to promote exist-
ing or create regional planning, including op-
portunities to integrate climate change into
water infrastructure and environmental con-
servation planning.

(c) MEMBERSHIP.—

(1) NUMBER AND APPOINTMENT.—The Com-
mission shall be composed of eight members who
shall be appointed, not later than 90 days after the
date of enactment of this Act, as follows:

1 (A) Two members appointed by the Presi-
2 dent.

3 (B) Two members appointed by the Speak-
4 er of the House of Representatives from a list
5 of four individuals—

6 (i) two nominated for that appoint-
7 ment by the chairman of the Committee on
8 Transportation and Infrastructure of the
9 House of Representatives; and

10 (ii) two nominated for that appoint-
11 ment by the chairman of the Committee
12 Natural Resources of the House of Rep-
13 resentatives.

14 (C) Two members appointed by the major-
15 ity leader of the Senate from a list of four indi-
16 viduals—

17 (i) two nominated for that appoint-
18 ment by the chairman of the Committee on
19 Environment and Public Works of the Sen-
20 ate; and

21 (ii) two nominated for that appoint-
22 ment by the chairman of the Committee on
23 Energy and Natural Resources of the Sen-
24 ate.

1 (D) One member appointed by the minor-
2 ity leader of the House of Representatives from
3 a list of two individuals—

4 (i) one nominated for that appoint-
5 ment by the ranking member of the Com-
6 mittee on Transportation and Infrastruc-
7 ture of the House of Representatives; and

8 (ii) one nominated for that appoint-
9 ment by the ranking member of the Com-
10 mittee on Natural Resources of the Senate.

11 (E) One member appointed by the minor-
12 ity leader of the Senate from a list of two indi-
13 viduals—

14 (i) one nominated for that appoint-
15 ment by the ranking member of the Com-
16 mittee on Environment and Public Works
17 of the Senate; and

18 (ii) one nominated for that appoint-
19 ment by the ranking member of the Com-
20 mittee on Energy and Natural Resources
21 of the Senate.

22 (2) QUALIFICATIONS.—

23 (A) RECOGNIZED STANDING AND DISTINC-
24 TION.—Members shall be appointed to the
25 Commission from among individuals who are of

1 recognized standing and distinction in water
2 policy issues.

3 (B) LIMITATION.—A person while serving
4 as a member of the Commission may not hold
5 any other position as an officer or employee of
6 the United States, except as a retired officer or
7 retired civilian employee of the United States.

8 (C) OTHER CONSIDERATIONS.—In appoint-
9 ing members of the Commission, every effort
10 shall be made to ensure that the members rep-
11 resent a broad cross section of regional and
12 geographical perspectives in the United States.

13 (3) CHAIRPERSON.—The Chairperson of the
14 Commission shall be elected by a majority vote of
15 the members of the Commission.

16 (4) TERMS.—Members of the Commission shall
17 serve for the life of the Commission.

18 (5) VACANCIES.—A vacancy on the Commission
19 shall not affect its operation and shall be filled in
20 the manner in which the original appointment was
21 made.

22 (6) COMPENSATION AND TRAVEL EXPENSES.—
23 Members of the Commission shall serve without
24 compensation; except that members shall receive
25 travel expenses, including per diem in lieu of subsist-

1 ence, in accordance with applicable provisions under
2 subchapter I of chapter 57, United States Code.

3 (d) MEETINGS AND QUORUM.—

4 (1) MEETINGS.—The Commission shall hold its
5 first meeting not later than 60 days after the date
6 on which all original members are appointed under
7 subsection (c) and shall hold additional meetings at
8 the call of the Chairperson or a majority of its mem-
9 bers.

10 (2) QUORUM.—A majority of the members of
11 the Commission shall constitute a quorum for the
12 transaction of business.

13 (e) DIRECTOR AND STAFF.—

14 (1) DIRECTOR.—The Commission shall have a
15 Director who shall be appointed by the Speaker of
16 the House of Representatives and the majority lead-
17 er of the Senate, in consultation with the minority
18 leader of the House of Representatives, the chairmen
19 of the Committees on Resources and Transportation
20 and Infrastructure of the House of Representatives,
21 the minority leader of the Senate, and the chairmen
22 of the Committee on Energy and Natural Resources
23 and Environment and Public Works of the Senate.

24 (2) APPLICABILITY OF CERTAIN CIVIL SERVICE
25 LAWS.—The Director and staff of the Commission

1 may be appointed without regard to the provisions
2 of title 5, United States Code, governing appoint-
3 ments in the competitive service, and may be paid
4 without regard to the provisions of chapter 51 and
5 subchapter III of chapter 53 of that title relating to
6 classification and General Schedule pay rates; except
7 that an individual so appointed may not receive pay
8 in excess of the annual rate of basic pay for GS-15
9 of the General Schedule.

10 (f) HEARINGS.—

11 (1) MINIMUM NUMBER.—The Commission shall
12 hold no fewer than 10 hearings during the life of the
13 Commission.

14 (2) IN CONJUNCTION WITH MEETINGS.—Hear-
15 ings may be held in conjunction with meetings of the
16 Commission.

17 (3) TESTIMONY AND EVIDENCE.—The Commis-
18 sion may take such testimony and receive such evi-
19 dence as the Commission considers appropriate to
20 carry out this section.

21 (4) SPECIFIED.—At least one hearing shall be
22 held in Washington, District of Columbia, for the
23 purpose of taking testimony of representatives of
24 Federal agencies, national organizations, and Mem-
25 bers of Congress. At least one hearing shall focus on

1 potential water resource issues relating to climate
2 change and how to mitigate the harms of climate
3 change-related weather events.

4 (5) NONSPECIFIED.—Hearings, other than
5 those referred to in paragraph (4), shall be sched-
6 uled in distinct geographical regions of the United
7 States. In conducting such hearings, the Commission
8 should seek to ensure testimony from individuals
9 with a diversity of experiences, including those who
10 work on water issues at all levels of government and
11 in the private sector.

12 (g) INFORMATION AND SUPPORT FROM FEDERAL
13 AGENCIES.—Upon request of the Commission, the head
14 of a Federal department or agency shall—

15 (1) provide to the Commission, within 30 days
16 of the request, such information as the Commission
17 considers necessary to carry out this section; and

18 (2) detail to temporary duty with the Commis-
19 sion on a reimbursable basis such personnel as the
20 Commission considers necessary to carry out this
21 section.

22 (h) INTERIM REPORTS.—Not later than one year
23 after the date of the first meeting of the Commission, and
24 every year thereafter, the Commission shall submit an in-
25 terim report containing a detailed summary of its

1 progress, including meetings held and hearings conducted
2 before the date of the report, to—

3 (1) the President; and

4 (2) Congress.

5 (i) FINAL REPORT.—As soon as practicable, but not
6 later than 5 years after the date of the first meeting of
7 the Commission, the Commission shall submit a final re-
8 port containing a detailed statement of the findings and
9 conclusions of the Commission and recommendations for
10 legislation and other policies to implement such findings
11 and conclusions to—

12 (1) the President;

13 (2) the Committee on Natural Resources and
14 the Committee on Transportation and Infrastructure
15 of the House of Representatives; and

16 (3) the Committee on Energy and Natural Re-
17 sources and the Committee on the Environment and
18 Public Works of the Senate.

19 (j) TERMINATION.—The Commission shall terminate
20 not later than 30 days after the date on which the Com-
21 mission transmits a final report under subsection (h)(1).

22 (k) APPLICABILITY OF FEDERAL ADVISORY COM-
23 MITTEE ACT.—The Federal Advisory Committee Act (5
24 U.S.C. App. 1 et seq.) shall not apply to the Commission.

1 (l) AUTHORIZATION OF APPROPRIATIONS.—There is
2 authorized to be appropriated \$12,000,000 to carry out
3 this section.

4 **SEC. 8703. STUDY OF POTENTIAL IMPACTS OF CLIMATE**
5 **CHANGE ON WATER RESOURCES AND WATER**
6 **QUALITY.**

7 (a) NATIONAL ACADEMY STUDY.—The Adminis-
8 trator of the Environmental Protection Agency shall enter
9 into an arrangement with the National Academy of
10 Sciences under which the Academy shall—

11 (1) produce a 2-part study that will consist
12 of—

13 (A) a study that will identify the potential
14 impacts of climate change on the Nation's wa-
15 tersheds and water resources, including
16 hydrological and ecological impacts;

17 (B) a study that will identify the potential
18 impacts of climate change on water quality, in-
19 cluding the extent to which Federal and State
20 efforts under the Federal Water Pollution Con-
21 trol Act (33 U.S.C. 1251 et seq.) and other
22 ocean and coastal laws may be affected by cli-
23 mate change;

24 (C) information, analyses, and data that
25 will identify, to the maximum extent prac-

1 ticable, hydrological and temperature changes
2 by watershed in the United States and that
3 support the findings made under subparagraphs
4 (A) and (B); and

5 (D) identification of the scientific con-
6 sensus, assumptions, and uncertainties related
7 to predictions of climate change in the United
8 States;

9 (2) identify the potential impacts of climate
10 change on the Nation's water resources, watersheds,
11 and water quality, including the potential for im-
12 pacts to wetlands, shoreline erosion, and saltwater
13 intrusion as a result of sea level rise, and the poten-
14 tial for significant regional variation in precipitation
15 events to impact Federal, State, and local efforts to
16 attain or maintain water quality;

17 (3) assess the extent to which Federal and
18 State efforts under the Federal Water Pollution
19 Control Act and other ocean and coastal laws may
20 be affected by climate change;

21 (4) identify prudent steps to assess emerging
22 information and identify appropriate response ac-
23 tions to meet the requirements of such Act, includ-
24 ing provisions to attain or maintain water quality

1 standards and for adequate stream flows for wet-
2 lands and aquatic resources; and

3 (5) recommend, if necessary, potential legisla-
4 tive or regulatory changes to address impacts of
5 global climate change on efforts to restore and main-
6 tain the chemical, physical, and biological integrity
7 of the Nation's waters.

8 (b) RECOMMENDATIONS.—Not later than 2 years
9 after the date of the enactment of this Act, the Adminis-
10 trator shall transmit to Congress a report on the results
11 of the study under this section.

12 (c) AUTHORIZATION OF APPROPRIATIONS.—There is
13 authorized to be appropriated \$1,500,000 to carry out this
14 section.

15 **SEC. 8704. IMPACTS OF CLIMATE CHANGE ON CORPS OF**
16 **ENGINEERS PROJECTS.**

17 (a) IN GENERAL.—The Secretary of the Army shall
18 ensure that water resources projects and studies carried
19 out by the Corps of Engineers after the date of enactment
20 of this Act take into account the potential short and long
21 term effects of climate change on such projects.

22 (b) CONSIDERATION.—In carrying out this section,
23 the Secretary shall utilize a representative range of cli-
24 mate change scenarios, including the current projections

1 of the United States Global Change Research Program
2 and the Intergovernmental Panel on Climate Change.

3 (c) REPORT TO CONGRESS.—Not later than one year
4 after the date of enactment of this Act, the Secretary shall
5 submit to the Committee on Transportation and Infra-
6 structure of the House of Representatives and the Com-
7 mittee on Environment and Public Works of the Senate
8 a report on the implementation of this section.

9 **PART 2—EMERGENCY MANAGEMENT**

10 **SEC. 8731. EFFECTS OF CLIMATE CHANGE ON FEMA PRE-**
11 **PAREDNESS, RESPONSE, RECOVERY, AND**
12 **MITIGATION PROGRAMS.**

13 (a) STUDY.—The Administrator of the Federal
14 Emergency Management Agency shall conduct a com-
15 prehensive study of the increase in demand for the Agen-
16 cy's emergency preparedness, response, recovery, and miti-
17 gation programs and services that may be reasonably an-
18 ticipated as a result of an increased number and intensity
19 of natural disasters affected by climate change, including
20 hurricanes, floods, tornadoes, fires, droughts, and severe
21 storms.

22 (b) CONTENTS.—The study shall include an analysis
23 of the budgetary and personnel needs of meeting the in-
24 creased demand for Agency services referred to in sub-
25 section (a).

(c) REPORT.—Not later than one year after the date of enactment of this Act, the Administrator shall submit to the Committee on Transportation and Infrastructure of the House of Representatives and the Committee on Homeland Security and Governmental Affairs of the Senate a report and any legislative recommendations on the study conducted under this section.

TITLE IX—ENERGY AND COMMERCE

Subtitle A—Promoting Energy Efficiency

SEC. 9000. SHORT TITLE.

This subtitle may be cited as the “Energy Efficiency Improvement Act of 2007”.

PART 1—APPLIANCE EFFICIENCY

SEC. 9001. ENERGY STANDARDS FOR HOME APPLIANCES.

(a) APPLIANCES.—The Energy Policy and Conservation Act is amended as follows:

(1) DEHUMIDIFIERS.—Section 325(cc)(2) (42 U.S.C. 6295(cc)(2)) is amended to read as follows:

“(2) Dehumidifiers manufactured on or after October 1, 2012, shall have an Energy Factor that meets or exceeds the following values:

“Product Capacity (pints/day):	Minimum Energy Factor (liters/ KWh)
Up to 35.00	1.35

35.01-45.00	1.50
45.01-54.00	1.60
54.01-75.00	1.70
Greater than 75.00	2.5.”.

1 (2) RESIDENTIAL CLOTHESWASHERS AND RESI-
2 DENTIAL DISHWASHERS.—Section 325(g) (42
3 U.S.C. 6295(g)) is amended by adding at the end
4 the following new paragraphs:

5 “(9) A top-loading or front-loading standard-size res-
6 idential clotheswasher manufactured on or after January
7 1, 2011, shall have—

8 “(A) a Modified Energy Factor of at least 1.26;
9 and

10 “(B) a water factor of not more than 9.5.

11 “(10) No later than December 31, 2011, the Sec-
12 retary shall publish a final rule determining whether to
13 amend the standards in effect for clotheswashers manufac-
14 tured on or after January 1, 2015. Such rule shall contain
15 such amendment, if any.

16 “(11) Dishwashers manufactured on or after January
17 1, 2010, shall—

18 “(A) for standard size dishwashers not exceed
19 355 kwh/year and 6.5 gallon per cycle; and

20 “(B) for compact size dishwashers not exceed
21 260 kwh/year and 4.5 gallons per cycle.

22 “(12) No later than January 1, 2015, the Secretary
23 shall publish a final rule determining whether to amend

1 the standards for dishwashers manufactured on or after
2 January 1, 2018. Such rule shall contain such amend-
3 ment, if any.”.

4 (3) REFRIGERATORS AND FREEZERS.—Section
5 325(b) (42 U.S.C. 6295(b)) is amended by adding
6 at the end the following new paragraph:

7 “(4) Not later than December 31, 2010, the Sec-
8 retary shall publish a final rule determining whether to
9 amend the standards in effect for refrigerators, refrig-
10 erator-freezers, and freezers manufactured on or after
11 January 1, 2014. Such rule shall contain such amend-
12 ment, if any.”.

13 (b) ENERGY STAR.—Section 324A(d)(2) of the En-
14 ergy Policy and Conservation Act (42 U.S.C. 6294a(d)(2))
15 is amended by striking “January 1, 2010” and inserting
16 “July 1, 2009”.

17 **SEC. 9002. ELECTRIC MOTOR EFFICIENCY STANDARDS.**

18 (a) DEFINITIONS.—Section 340(13) of the Energy
19 Policy and Conservation Act (42 U.S.C. 6311(13)) is
20 amended—

21 (1) by redesignating subparagraphs (B)
22 through (H) as subparagraphs (C) through (I), re-
23 spectively; and

24 (2) by striking the text of subparagraph (A)
25 and inserting the following: “The term ‘general pur-

pose electric motor (subtype I)’ means any motor that meets the definition of ‘General Purpose’ as established in the final rule issued by the Department of Energy for ‘Energy Efficiency Program for Certain Commercial and Industrial Equipment: Test Procedures, Labeling, and Certification Requirements for Electric Motors’ (10 CFR 431), as in effect on the date of enactment of the Energy Efficiency Improvement Act of 2007.

“(B) The term ‘general purpose electric motor (subtype II)’ means motors incorporating the design elements of a general purpose electric motor (subtype I) that are configured as one of the following:

“(i) U-Frame Motors.

“(ii) Design C Motors.

“(iii) Close-coupled pump motors.

“(iv) Footless motors.

“(v) Vertical solid shaft normal thrust motor (as tested in a horizontal configuration).

“(vi) 8-pole motors (~900 rpm).

“(vii) All poly-phase motors with voltages up to 600 volts other than 230/460 volts.”.

(b) STANDARDS.—

1 (1) AMENDMENT.—Section 342(b) of the Energy
2 Policy and Conservation Act (42 U.S.C. 6313(b)) is
3 amended by striking the text of paragraph (1) and insert-
4 ing the following: “(A) Each general purpose electric
5 motor (subtype I), except as provided in subparagraph
6 (B), with a power rating of 1 horsepower or greater, but
7 not greater than 200 horsepower, manufactured (alone or
8 as a component of another piece of equipment) after the
9 36-month period beginning on the date of enactment of
10 the Energy Efficiency Improvement Act of 2007, shall
11 have a nominal full load efficiency not less than as defined
12 in NEMA MG–1 (2006) Table 12–12.

13 “(B) Each fire pump motor manufactured (alone or
14 as a component of another piece of equipment) after the
15 36-month period beginning on the date of enactment of
16 the Energy Efficiency Improvement Act of 2007, shall
17 have nominal full load efficiency not less than as defined
18 in NEMA MG–1 (2006) Table 12–11.

19 “(C) Each general purpose electric motor (subtype
20 II) with a power rating of 1 horsepower or greater, but
21 not greater than 200 horsepower, manufactured (alone or
22 as a component of another piece of equipment) after the
23 36-month period beginning on the date of enactment of
24 the Energy Efficiency Improvement Act of 2007, shall

1 have a nominal full load efficiency not less than as defined
2 in NEMA MG–1 (2006) Table 12–11.

3 “(D) Each NEMA Design B, general purpose electric
4 motor with a power rating of more than 200 horsepower,
5 but not greater than 500 horsepower, manufactured
6 (alone or as a component of another piece of equipment)
7 after the 36-month period beginning on the date of enact-
8 ment of the Energy Efficiency Improvement Act of 2007,
9 shall have a nominal full load efficiency not less than as
10 defined in NEMA MG–1 (2006) Table 12–11.”.

11 (2) EFFECTIVE DATE.—The amendment made by
12 paragraph (1) shall take effect 36 months after the date
13 of enactment of this Act.

14 **SEC. 9003. RESIDENTIAL BOILERS.**

15 Section 325(f) of the Energy Policy and Conservation
16 Act (42 U.S.C. 6925(f)) is amended—

17 (1) in the subsection heading, by inserting
18 “AND BOILERS” after “FURNACES”;

19 (2) in paragraph (1), by striking “except that”
20 and all that follows through “(B)” and inserting
21 “except that”;

22 (3) by redesignating paragraph (3) as para-
23 graph (4); and

24 (4) by inserting after paragraph (2) the fol-
25 lowing:

1 “(3) BOILERS.—

2 “(A) IN GENERAL.—Subject to subparagraph
3 (B), boilers manufactured on or after September 1,
4 2012, shall meet the following requirements:

Boiler Type	Minimum Annual Fuel Utilization Efficiency	Design Requirements
Gas Hot Water	82%	No Constant Burning Pilot, Automatic Means for Adjusting Water Temperature
Gas Steam	80%	No Constant Burning Pilot
Oil Hot Water	84%	Automatic Means for Adjusting Temperature
Oil Steam	82%	None
Electric Hot Water	None	Automatic Means for Adjusting Temperature
Electric Steam	None	None

5 “(B) AUTOMATIC MEANS FOR ADJUSTING
6 WATER TEMPERATURE.—

7 “(i) IN GENERAL.—The manufacturer
8 shall equip each gas, oil and electric hot water
9 boiler, except boilers equipped with tankless do-
10 mestic water heating coils, with automatic
11 means for adjusting the temperature of the
12 water supplied by the boiler to ensure that an
13 incremental change in inferred heat load pro-

1 duces a corresponding incremental change in
2 the temperature of water supplied.

3 “(ii) SINGLE INPUT RATE.—For a boiler
4 that fires at one input rate this requirement
5 may be satisfied by providing an automatic
6 means that allows the burner or heating ele-
7 ment to fire only when such means has deter-
8 mined that the inferred heat load cannot be met
9 by the residual heat of the water in the system.

10 “(iii) NO INFERRED HEAT LOAD.—When
11 there is no inferred heat load with respect to a
12 hot water boiler, the automatic means described
13 in clause (i) and (ii) shall limit the temperature
14 of the water in the boiler to not more than 140
15 degrees Fahrenheit.

16 “(iv) OPERATION.—A boiler described in
17 clause (i) or (ii) shall be operable only when the
18 automatic means described in clauses (i), (ii),
19 and (iii) is installed.

20 “(C) EXCEPTION.—Boilers that are manufac-
21 tured to operate without any need for electricity, any
22 electric connection, any electric gauges, electric
23 pumps, electric wires, or electric devices of any sort,
24 shall not be required to meet the requirements of
25 this section.”.

1 **SEC. 9004. REGIONAL VARIATIONS IN HEATING OR COOL-**
2 **ING STANDARDS.**

3 (a) CONSUMER APPLIANCES.—Section 325(o) of the
4 Energy Policy and Conservation Act (42 U.S.C. 6925(o))
5 is amended by adding at the end the following new para-
6 graph:

7 “(6)(A) The Secretary may establish regional stand-
8 ards for space heating and air conditioning products, other
9 than window-unit air-conditioners and portable space
10 heaters. For each space heating and air conditioning prod-
11 uct, the Secretary may establish a national minimum
12 standard and two more stringent regional standards for
13 regions determined to have significantly differing climatic
14 conditions. Any standards set for any such region shall
15 achieve the maximum level of energy savings that are tech-
16 nically feasible and economically justified within that re-
17 gion. As a preliminary step to determining the economic
18 justifiability of establishing any such regional standard,
19 the Secretary shall conduct a study involving stakeholders,
20 including but not limited to a representative from the Na-
21 tional Institute of Standards and Technology; representa-
22 tives of nongovernmental advocacy organizations; rep-
23 resentatives of product manufacturers, distributors, and
24 installers; representatives of the gas and electric utility in-
25 dustries; and such other individuals as the Secretary may
26 designate. Such study shall determine the potential bene-

1 fits and consequences of prescribing regional standards for
2 heating and cooling products, and may, if favorable to
3 such standards, constitute the evidence of economic justifi-
4 ability required under this Act. Regional boundaries shall
5 follow State borders and only include contiguous States
6 (except Alaska and Hawaii), except that on the request
7 of a State, the Secretary may divide that State to include
8 a part of that State in each of two regions.

9 “(B) If the Secretary establishes regional standards,
10 it shall be unlawful under section 332 to offer for sale
11 at retail, sell at retail, or install noncomplying products
12 except within the specified regions.

13 “(C)(i) Except as provided in clause (ii), no product
14 manufactured to a regional standard established pursuant
15 to subparagraph (A) shall be distributed in commerce
16 without a prominent label affixed to the product which in-
17 cludes at the top of the label, in print of not less than
18 14-point type, the following: ‘It is a violation of Federal
19 law for this product to be installed in any State outside
20 the region shaded on the map printed on this label.’.
21 Below this notice shall appear a map of the United States
22 with clearly defined State boundaries and names, and with
23 all States in which the product meets or exceeds the stand-
24 ard established pursuant to subparagraph (A) shaded in
25 a color or a manner as to be easily visible without obscur-

1 ing the State boundaries and names. Below the map shall
2 be printed on each label the following: ‘It is a violation
3 of Federal law for this label to be removed, except by the
4 owner and legal resident of any single-family home in
5 which this product is installed.’.

6 “(ii) A product manufactured that meets or exceeds
7 all regional standards established under this paragraph
8 shall bear a prominent label affixed to the product which
9 includes at the top of the label, in print of not less than
10 14-point type the following: ‘This product has achieved an
11 energy efficiency rating under Federal law allowing its in-
12 stallation in any State.’.

13 “(D) Manufacturers of space heating and air condi-
14 tioning equipment subject to regional standards estab-
15 lished under this paragraph shall obtain and retain
16 records on the intended installation locations of the equip-
17 ment sold, and shall make such records available to the
18 Secretary on request.”.

19 (b) INDUSTRIAL EQUIPMENT.—Section 342(a) of the
20 Energy Policy and Conservation Act (42 U.S.C. 6313(a))
21 is amended by adding at the end the following new para-
22 graph:

23 “(10)(A) The Secretary may establish regional stand-
24 ards for space heating and air conditioning products sub-
25 ject to this subsection. For each space heating and air con-

1 ditioning product, the Secretary may establish a national
2 minimum standard and two more stringent regional stand-
3 ards for regions determined to have significantly differing
4 climatic conditions. Any standards set for any such region
5 shall achieve the maximum level of energy savings that
6 are technically feasible and economically justified within
7 that region. Regional boundaries shall follow State borders
8 and only include contiguous States (except Alaska and
9 Hawaii), except that on the request of a State, the Sec-
10 retary may divide that State to include a part of that State
11 in each of two regions.

12 “(B) If the Secretary establishes regional standards,
13 it shall be unlawful under section 345 to offer for sale
14 at retail, sell at retail, or install noncomplying products
15 except within the specified regions.

16 “(C) Manufacturers of space heating and air condi-
17 tioning equipment subject to regional standards estab-
18 lished under this paragraph shall obtain and retain
19 records on the intended installation locations of the equip-
20 ment sold, and shall make such records available to the
21 Secretary on request.”.

22 **SEC. 9005. PROCEDURE FOR PRESCRIBING NEW OR AMEND-**
23 **ED STANDARDS.**

24 Section 325(p) of the Energy Policy and Conserva-
25 tion Act (42 U.S.C. 6925(p)) is amended—

1 (1) by striking paragraph (1); and

2 (2) by redesignating paragraphs (2) through

3 (4) as paragraphs (1) through (3), respectively.

4 **SEC. 9006. EXPEDITING APPLIANCE STANDARDS**
5 **RULEMAKINGS.**

6 (a) **DIRECT FINAL RULE.**—Section 325(p) of the En-
7 ergy Policy and Conservation Act (42 U.S.C. 6295(p)) is
8 amended by adding a new paragraph (4) as follows:

9 “(4) If manufacturers of any type (or class) of
10 covered products or covered equipment, States, and
11 efficiency advocates, or persons determined by the
12 Secretary to fully represent such parties, submit to
13 the Secretary a joint recommendation of an energy
14 or water conservation standard and the Secretary
15 determines that the recommended standard complies
16 with subsection (o) or section 342(a)(6)(B), as appli-
17 cable, to that type (or class) of covered products or
18 covered equipment to which the standard would
19 apply, the Secretary may then issue a direct final
20 rule including the standard recommended. If the
21 Secretary determines that a direct final rule cannot
22 be issued based on such a submitted joint rec-
23 ommendation, the Secretary shall publish a deter-
24 mination with an explanation as to why the joint
25 recommendation does not comply with this para-

1 graph. For purposes of this paragraph, the term ‘di-
2 rect final rule’ means a final rule published the same
3 day with a parallel notice of proposed rulemaking
4 that proposes a new or amended energy or water
5 conservation standard that is identical to the stand-
6 ard set forth in the final rule. There shall be a 110-
7 day period for public comment with respect to the
8 direct final rule. Not later than 10 days after the ex-
9 piration of such 110-day period, the Secretary shall
10 publish a notice responding to comments received
11 with respect to the direct final rule. The Secretary
12 shall withdraw a direct final rule promulgated pur-
13 suant to this paragraph within 120 days after publi-
14 cation in the Federal Register if the Secretary re-
15 ceives, with respect to the direct final rule, one or
16 more adverse public comments or any alternate joint
17 recommendation and, based on the rulemaking
18 record, the Secretary determines that such adverse
19 comments or alternate joint recommendation may
20 provide a reasonable basis for withdrawing the direct
21 final rule under subsection (o), section 342(a)(6)(B),
22 or any applicable law. In such a case, the Secretary
23 shall then proceed with the parallel notice of pro-
24 posed rulemaking, and shall identify in a notice pub-
25 lished in the Federal Register the reasons for the

1 withdrawal of the direct final rule. A direct final rule
2 that is withdrawn in accordance with this paragraph
3 shall not be considered final for purposes of sub-
4 section (o)(1) of this section. No person shall be
5 found in violation of this part for noncompliance
6 with a direct final rule that is withdrawn under this
7 paragraph, if that person has complied with the ap-
8 plicable standard in effect under this part imme-
9 diately prior to issuance of that direct final rule.”.

10 (b) CONFORMING AMENDMENT.—Section 345(b)(1)
11 of the Energy Policy and Conservation Act (42 U.S.C.
12 6316(b)(1)) is amended by inserting after “section” the
13 first time it appears “325(p)(5), section”.

14 **SEC. 9007. CORRECTION OF LARGE AIR CONDITIONER**
15 **RULE ISSUANCE CONSTRAINT.**

16 (a) DEFINITIONS.—Section 340 of the Energy Policy
17 and Conservation Act (42 U.S.C. 6311) is amended by
18 adding the following new paragraphs at the end:

19 “(22) The term ‘single package vertical air con-
20 ditioner’ means air-cooled commercial package air
21 conditioning and heating equipment; factory assem-
22 bled as a single package having its major compo-
23 nents arranged vertically, which is an encased com-
24 bination of cooling and optional heating components,
25 is intended for exterior mounting on, adjacent inte-

rior to, or through an outside wall; and is powered by a single- or three-phase current. It may contain separate indoor grille(s), outdoor louvers, various ventilation options, indoor free air discharge, ductwork, well plenum, or sleeve. Heating components may include electrical resistance, steam, hot water, or gas, but may not include reverse cycle refrigeration as a heating means.

“(23) The term ‘single package vertical heat pump’ means a single package vertical air conditioner that utilizes reverse cycle refrigeration as its primary heat source, that may include secondary supplemental heating by means of electrical resistance, steam, hot water, or gas.”.

(b) STANDARDS.—Section 342(a) of the Energy Policy and Conservation Act (42 U.S.C. 6313(a)) is amended—

(1) in each of paragraphs (1) and (2), by inserting after “heating equipment” in the first sentence “, including single package vertical air conditioners and single package vertical heat pumps,”;

(2) in paragraph (1), by striking “but before January 1, 2010,”;

(3) in each of paragraphs (7), (8), and (9), by inserting after “heating equipment” in the first sen-

1 tence “, excluding single package vertical air condi-
2 tioners and single package vertical heat pumps,”;

3 (4) in paragraph (7)—

4 (A) by striking “manufactured on or after
5 January 1, 2010,”;

6 (B) in each of subparagraphs (A), (B), and
7 (C), by striking “The” and inserting “For
8 equipment manufactured on or after January 1,
9 2010, the”; and

10 (C) by adding at the end the following new
11 subparagraphs:

12 “(D) For equipment manufactured on or after
13 the later of January 1, 2008, or the date six months
14 after enactment of this section, the minimum sea-
15 sonal energy efficiency ratio of air-cooled three-phase
16 electric central air conditioners and central air con-
17 ditioning heat pumps less than 65,000 Btu per hour
18 (cooling capacity), split systems, shall be 13.0.

19 “(E) For equipment manufactured on or after
20 the later of January 1, 2008, or the date six months
21 after enactment of this section, minimum seasonal
22 energy efficiency ratio of air-cooled three-phase elec-
23 tric central air conditioners and central air condi-
24 tioning heat pumps less than 65,000 Btu per hour
25 (cooling capacity), single package, shall be 13.0.

1 “(F) For equipment manufactured on or after
2 the later of January 1, 2008, or the date six months
3 after enactment of this section, minimum heating
4 seasonal performance factor of air-cooled three-
5 phase electric central air conditioning heat pumps
6 less than 65,000 Btu per hour (cooling capacity),
7 split systems, shall be 7.7.

8 “(G) For equipment manufactured on or after
9 the later of January 1, 2008, or the date six months
10 after enactment of this section, the minimum heat-
11 ing seasonal performance factor of air-cooled three-
12 phase electric central air conditioning heat pumps
13 less than 65,000 Btu per hour (cooling capacity),
14 single package, shall be 7.7.”; and

15 (5) by adding the following new paragraphs at
16 the end:

17 “(11) Single package vertical air conditioners and
18 single package vertical heat pumps manufactured on or
19 after January 1, 2010, shall meet the following standards:

20 “(A) The minimum energy efficiency ratio of
21 single package vertical air conditioners less than
22 65,000 Btu per hour (cooling capacity), single-
23 phase, shall be 9.0.

24 “(B) The minimum energy efficiency ratio of
25 single package vertical air conditioners less than

1 65,000 Btu per hour (cooling capacity), three-phase,
2 shall be 9.0.

3 “(C) The minimum energy efficiency ratio of
4 single package vertical air conditioners at or above
5 65,000 Btu per hour (cooling capacity) but less than
6 135,000 Btu per hour (cooling capacity), shall be
7 8.9.

8 “(D) The minimum energy efficiency ratio of
9 single package vertical air conditioners at or above
10 135,000 Btu per hour (cooling capacity) but less
11 than 240,000 Btu per hour (cooling capacity), shall
12 be 8.6.

13 “(E) The minimum energy efficiency ratio of
14 single package vertical heat pumps less than 65,000
15 Btu per hour (cooling capacity), single-phase, shall
16 be 9.0; and the minimum coefficient of performance
17 in the heating mode shall be 3.0.

18 “(F) The minimum energy efficiency ratio of
19 single package vertical heat pumps less than 65,000
20 Btu per hour (cooling capacity), three-phase, shall
21 be 9.0; and the minimum coefficient of performance
22 in the heating mode shall be 3.0.

23 “(G) The minimum energy efficiency ratio of
24 single package vertical heat pumps at or above
25 65,000 Btu per hour (cooling capacity) but less than

1 135,000 Btu per hour (cooling capacity), shall be
2 8.9; and the minimum coefficient of performance in
3 the heating mode shall be 3.0.

4 “(H) The minimum energy efficiency ratio of
5 single package vertical heat pumps at or above
6 135,000 Btu per hour (cooling capacity) but less
7 than 240,000 Btu per hour (cooling capacity), shall
8 be 8.6; and the minimum coefficient of performance
9 in the heating mode shall be 2.9.

10 “(12) Not later than 36 months after the date of en-
11 actment of this paragraph, the Secretary shall review the
12 most recently published ASHRAE/IES Standard 90.1
13 with respect to single package vertical air conditioners and
14 single package vertical heat pumps according to the proce-
15 dures established in paragraph (6).”.

16 **SEC. 9008. DEFINITION OF ENERGY CONSERVATION STAND-**
17 **ARD.**

18 Section 321 of the Energy Policy and Conservation
19 Act (42 U.S.C. 6291) is amended by striking paragraph
20 (6) and inserting the following:

21 “(6) ENERGY CONSERVATION STANDARD.—

22 “(A) IN GENERAL.—The term ‘energy con-
23 servation standard’ means 1 or more perform-
24 ance standards that—

1 “(i) for covered products (excluding
2 clothes washers, dishwashers, showerheads,
3 faucets, water closets, and urinals), pre-
4 scribe a minimum level of energy efficiency
5 or a maximum quantity of energy use, de-
6 termined in accordance with test proce-
7 dures prescribed under section 323;

8 “(ii) for showerheads, faucets, water
9 closets, and urinals, prescribe a minimum
10 level of water efficiency or a maximum
11 quantity of water use, determined in ac-
12 cordance with test procedures prescribed
13 under section 323; and

14 “(iii) for clothes washers and dish-
15 washers—

16 “(I) prescribe a minimum level of
17 energy efficiency or a maximum quan-
18 tity of energy use, determined in ac-
19 cordance with test procedures pre-
20 scribed under section 323; and

21 “(II) may include a minimum
22 level of water efficiency or a maximum
23 quantity of water use, determined in
24 accordance with those test procedures.

1 “(B) INCLUSIONS.—The term ‘energy con-
2 servation standard’ includes—

3 “(i) 1 or more design requirements, if
4 the requirements were established—

5 “(I) on or before the date of en-
6 actment of this subclause; or

7 “(II) as part of a consensus
8 agreement under section 325(p)(5);
9 and

10 “(ii) any other requirements that the
11 Secretary may prescribe under section
12 325(r).

13 “(C) EXCLUSION.—The term ‘energy con-
14 servation standard’ does not include a perform-
15 ance standard for a component of a finished
16 covered product, unless regulation of the com-
17 ponent is authorized or established pursuant to
18 this title.”.

19 **SEC. 9009. IMPROVING SCHEDULE FOR STANDARDS UPDAT-**
20 **ING AND CLARIFYING STATE AUTHORITY.**

21 (a) CONSUMER APPLIANCES.—Section 325(m) of the
22 Energy Policy and Conservation Act (42 U.S.C. 6295(m))
23 is amended to read as follows:

24 “(m) FURTHER RULEMAKING.—(1) Not later than 6
25 years after issuance of any final rule establishing or

1 amending a standard, as required for a product under this
2 part, the Secretary shall publish either—

3 “(A) a notice of the Secretary’s determination
4 that standards for that product do not need to be
5 amended, based on the criteria in subsection (n)(2);
6 or

7 “(B) a notice of proposed rulemaking including
8 new proposed standards based on the criteria in sub-
9 section (o) and the procedures in subsection (p).

10 In either case, the Secretary shall also publish a notice
11 stating that the Department’s analysis is publicly avail-
12 able, and provide opportunity for written comment.

13 “(2) Not later than 2 years after a notice is issued
14 under paragraph (1)(B), the Secretary shall publish a
15 final rule amending the standard for the product. Not
16 later than 3 years after a determination under paragraph
17 (1)(A), the Secretary shall make a new determination and
18 publication under paragraph (1)(A) or (B).

19 “(3) An amendment prescribed under this subsection
20 shall apply to products manufactured after a date which
21 is 3 years after publication of the final rule establishing
22 a standard, except that a manufacturer shall not be re-
23 quired to apply new standards to a product with respect
24 to which other new standards have been required within
25 the prior 6 years.

1 “(4) The Secretary shall promptly submit to the
2 Committee on Energy and Commerce of the House of
3 Representatives and the Committee on Energy and Nat-
4 ural Resources of the Senate—

5 “(A) a progress report every 180 days on com-
6 pliance with this section, including a specific plan to
7 remedy any failures to comply with deadlines for ac-
8 tion set forth in this section; and

9 “(B) all required reports to the Court or to any
10 party to the Consent Decree in State of New York
11 v Bodman, Consolidated Civil Actions No.05 Civ.
12 7807 and No.05 Civ. 7808.”.

13 (b) INDUSTRIAL EQUIPMENT.—Section 342(a)(6) of
14 the Energy Policy and Conservation Act (42 U.S.C.
15 6313(a)(6)) is amended—

16 (1) by redesignating subparagraph (C) as sub-
17 paragraph (D); and

18 (2) by amending the remainder of the para-
19 graph to read as follows:

20 “(6)(A) If ASHRAE/IES Standard 90.1 is
21 amended with respect to any small, large, or very
22 large commercial package air conditioning and heat-
23 ing equipment, packaged terminal air conditioners,
24 packaged terminal heat pumps, warm-air furnaces,
25 packaged boilers, storage water heaters, instant-

1 neous water heaters, or unfired hot water storage
2 tanks, the Secretary shall within 6 months publish
3 in the Federal Register for public comment an anal-
4 ysis of the energy savings potential of the amended
5 energy efficiency standards. The Secretary shall es-
6 tablish an amended uniform national standard for
7 that product at the minimum level for each effective
8 date specified in the amended ASHRAE/IES Stand-
9 ard 90.1 within 18 months of the ASHRAE amend-
10 ment's publication, unless the Secretary determines,
11 by rule published in the Federal Register, and sup-
12 ported by clear and convincing evidence, that adop-
13 tion of a uniform national standard more stringent
14 than such amended ASHRAE/IES Standard 90.1
15 for such product would result in significant addi-
16 tional conservation of energy and is technologically
17 feasible and economically justified.

18 “(B) If the Secretary issues a rule containing
19 such a determination, the rule shall establish such
20 amended standard, and shall be issued within 30
21 months of the ASHRAE amendment's publication.

22 “(C)(i) Not later than 6 years after issuance of
23 any final rule establishing or amending a standard,
24 as required for a product under this part, the Sec-
25 retary shall publish either—

1 “(I) a notice of the Secretary’s determina-
2 tion that standards for that product do not
3 need to be amended, based on the criteria in
4 subparagraph (A); or

5 “(II) a notice of proposed rulemaking in-
6 cluding new proposed standards based on the
7 criteria and procedures in subparagraph (B).

8 In either case, the Secretary shall also publish a no-
9 tice stating that the Department’s analysis is pub-
10 licly available, and provide opportunity for written
11 comment.

12 “(ii) Not later than 2 years after a notice is
13 issued under clause (i)(II), the Secretary shall pub-
14 lish a final rule amending the standard for the prod-
15 uct. Not later than 3 years after a determination
16 under clause (i)(I), the Secretary shall make a new
17 determination and publication under clause (i)(I) or
18 (II).

19 “(iii) An amendment prescribed under this sub-
20 paragraph shall apply to products manufactured
21 after a date which is 3 years after publication of the
22 final rule establishing a standard, except that a
23 manufacturer shall not be required to apply new
24 standards to a product with respect to which other

1 new standards have been required within the prior
2 6 years.

3 “(iv) The Secretary shall promptly submit to
4 the House Committee on Energy and Commerce and
5 to the Senate Committee on Energy and Natural
6 Resources a progress report every 180 days on com-
7 pliance with this paragraph, including a specific plan
8 to remedy any failures to comply with deadlines for
9 action set forth in this paragraph.”.

10 **SEC. 9010. UPDATING APPLIANCE TEST PROCEDURES.**

11 (a) CONSUMER APPLIANCES.—Section 323(b)(1)(A)
12 of the Energy Policy and Conservation Act (42 U.S.C.
13 6923(b)(1)(A)) is amended by striking “The Secretary
14 may” and all that follows through “paragraph (3)” and
15 inserting “At least every 7 years the Secretary shall review
16 test procedures for all covered products and shall—

17 “(i) amend test procedures with respect to any
18 covered product if the Secretary determines that
19 amended test procedures would more accurately or
20 fully comply with the requirements of paragraph (3);
21 or

22 “(ii) publish notice in the Federal Register of
23 any determination not to amend a test procedure”.

24 (b) INDUSTRIAL EQUIPMENT.—Section 343(a)(1) of
25 the Energy Policy and Conservation Act (42 U.S.C.

1 6314(a)(1)) is amended by striking “The Secretary may”
2 and all that follows through “this section” and inserting
3 “At least every 7 years the Secretary shall conduct an
4 evaluation of each class of covered equipment and—

5 “(A) if the Secretary determines that amended
6 test procedures would more accurately or fully com-
7 ply with the requirements of paragraphs (2) and (3),
8 shall prescribe test procedures for such class in ac-
9 cordance with the provisions of this section; or

10 “(B) shall publish notice in the Federal Reg-
11 ister of any determination not to amend a test pro-
12 cedure”.

13 **SEC. 9011. FURNACE FAN STANDARD PROCESS.**

14 Section 325(f)(4)(D) of the Energy Policy and Con-
15 servation Act (42 U.S.C. 6295(f)(3)(D)), as redesignated
16 by section 9003(3) of this Act, is amended—

17 (1) by striking “may” and inserting “shall”;
18 and

19 (2) by inserting “not later than July 1, 2013”
20 after “duct work”.

21 **SEC. 9012. TECHNICAL CORRECTIONS.**

22 (a) Section 135(a)(1)(A)(ii) of the Energy Policy Act
23 of 2005 (Public Law 109–58) is amended by striking
24 “C78.1–1978(R1984)” and inserting “C78.3–
25 1978(R1984)”.

1 (b) Section 325 of the Energy Policy and Conserva-
2 tion Act (42 U.S.C. 6295) (as amended by section
3 135(c)(4) of the Energy Policy Act of 2005) is amended—

4 (1) in subsection (v)—

5 (A) in the subsection heading, by striking
6 “CEILING FANS AND”;

7 (B) by striking paragraph (1); and

8 (C) by redesignating paragraphs (2)
9 through (4) as paragraphs (1) through (3), re-
10 spectively; and

11 (2) in subsection (ff)—

12 (A) in paragraph (1)(A)—

13 (i) by striking clause (iii);

14 (ii) by redesignating clause (iv) as
15 clause (iii); and

16 (iii) in clause (iii)(II) (as so redesign-
17 ated), by inserting “fans sold for” before
18 “outdoor”; and

19 (B) in paragraph (4)(C)—

20 (i) in the matter preceding clause (i),
21 by striking “subparagraph (B)” and in-
22 serting “subparagraph (A)”;

23 (ii) by striking clause (ii) and insert-
24 ing the following:

1 “(ii) shall be packaged with lamps to fill all
2 sockets.”;

3 (C) in paragraph (6), by redesignating
4 subparagraphs (C) and (D) as clauses (i) and
5 (ii), respectively, of subparagraph (B); and

6 (D) in paragraph (7), by striking “327”
7 the second place it appears and inserting
8 “324”.

9 **SEC. 9013. ENERGY EFFICIENT STANDBY POWER DEVICES.**

10 (a) DEFINITIONS.—In this section:

11 (1) AGENCY.—

12 (A) IN GENERAL.—The term “agency” has
13 the meaning given the term “Executive agency”
14 in section 105 of title 5, United States Code.

15 (B) INCLUSIONS.—The term “agency” in-
16 cludes military departments, as the term is de-
17 fined in section 102 of title 5, United States
18 Code.

19 (2) ELIGIBLE PRODUCT.—The term “eligible
20 product” means a commercially available, off-the-
21 shelf product that—

22 (A)(i) uses external standby power devices;
23 or

24 (ii) contains an internal standby power
25 function; and

1 (B) is included on the list compiled under
2 subsection (d).

3 (b) FEDERAL PURCHASING REQUIREMENT.—Subject
4 to subsection (c), if an agency purchases an eligible prod-
5 uct, the agency shall purchase—

6 (1) an eligible product that uses not more than
7 1 watt in the standby power consuming mode of the
8 eligible product; or

9 (2) if an eligible product described in paragraph
10 (1) is not available, the eligible product with the low-
11 est available standby power wattage in the standby
12 power consuming mode of the eligible product.

13 (c) LIMITATION.—The requirements of subsection (b)
14 shall apply to a purchase by an agency only if—

15 (1) the lower-wattage eligible product is—

16 (A) lifecycle cost-effective; and

17 (B) practicable; and

18 (2) the utility and performance of the eligible
19 product is not compromised by the lower wattage re-
20 quirement.

21 (d) ELIGIBLE PRODUCTS.—The Secretary of Energy,
22 in consultation with the Secretary of Defense and the Ad-
23 ministrator of General Services, shall compile a list of
24 cost-effective eligible products that shall be subject to the
25 purchasing requirements of subsection (b).

1 **SEC. 9014. EXTERNAL POWER SUPPLY EFFICIENCY STAND-**
2 **ARDS.**

3 (a) Section 321 of the Energy Policy and Conserva-
4 tion Act (42 U.S.C. 6291) is amended—

5 (1) in paragraph (36) by inserting “(A)” before
6 the text and adding at the end the following:

7 “(B) The term ‘class A external power supply’
8 means a device that—

9 “(i) is designed to convert line voltage AC
10 input into lower voltage AC or DC output;

11 “(ii) is able to convert to only one AC or
12 DC output voltage at a time;

13 “(iii) is sold with, or intended to be used
14 with, a separate end-use product that con-
15 stitutes the primary load;

16 “(iv) is contained in a separate physical
17 enclosure from the end-use product;

18 “(v) is connected to the end-use product
19 via a removable or hard-wired male/female elec-
20 trical connection, cable, cord or other wiring;
21 and

22 “(vi) has nameplate output power less than
23 or equal to 250 watts.

24 “(C) The term ‘class A external power
25 supply’ does not include any device that—

1 “(i) requires Federal Food and Drug
2 Administration listing and approval as a
3 medical device, as described under section
4 513 of the Food, Drug, and Cosmetic Act
5 of 1938; or

6 “(ii) powers the charger of a detach-
7 able battery pack or charges the battery of
8 a product that is fully or primarily motor
9 operated.

10 “(D) The term ‘active mode’ means the
11 mode of operation when an external power sup-
12 ply is connected to the main electricity supply
13 and the output is connected to a load.

14 “(E) The term ‘no-load mode’ means the
15 mode of operation when an external power sup-
16 ply is connected to the main electricity supply
17 and the output is not connected to a load.”

18 (2) by adding at the end the following:

19 “(52) The term ‘detachable battery’ means a
20 battery that is contained in a separate enclosure
21 from the product and is intended to be removed or
22 disconnected from the product for recharging.”.

23 (b) Section 323 of the Energy Policy and Conserva-
24 tion Act (42 U.S.C. 6293) is amended in subsection (b)
25 by adding at the end the following:

1 “(17) Test procedures for class A external
 2 power supplies shall be based upon the U.S. Envi-
 3 ronmental Protection Agency’s ‘Test Method for
 4 Calculating the Energy Efficiency of Single-Voltage
 5 External AC–DC and AC–AC Power Supplies’, Au-
 6 gust 11, 2004, provided that the test voltage speci-
 7 fied in section 4(d) of such test method shall be only
 8 115 volts, 60 Hz.”.

9 (c) Section 325 of the Energy Policy and Conserva-
 10 tion Act (42 U.S.C. 6295) is amended in subsection (u)
 11 by adding at the end the following:

12 “(6) EFFICIENCY STANDARDS FOR CLASS A EX-
 13 TERNAL POWER SUPPLIES.—

14 “(A) Class A external power supplies man-
 15 ufactured on or after July 1, 2008 (or the date
 16 of enactment of this paragraph, if later) shall
 17 meet the following standards:

“Active Mode	
“Nameplate Output	Required Efficiency (decimal equivalent of a per- centage)
Less than 1 watt	0.5 times the Nameplate Output
From 1 watt to not more than 51 watts	The sum of 0.09 times the Natural Logarithm of the Nameplate Output and 0.5
Greater than 51 watts	0.85
“No-Load Mode	
“Nameplate Output	Maximum Consumption
Not more than 250 watts	0.5 watts

1 “(B) Notwithstanding paragraph (A), any
2 class A external power supply manufactured on
3 or after July 1, 2008, and before July 1, 2015,
4 and made available by the manufacturer as a
5 service part or a spare part for an end-use
6 product—

7 “(i) that constitutes the primary load;
8 and

9 “(ii) was manufactured before July 1,
10 2008,

11 shall not be subject to the requirements of
12 paragraph (A).

13 “(C) Any class A external power supply
14 manufactured on or after July 1, 2008 (or the
15 date of enactment of this paragraph, if later)
16 shall be clearly and permanently marked in ac-
17 cordance with the External Power Supply Inter-
18 national Efficiency Marking Protocol, as ref-
19 erenced in the ‘Energy Star Program Require-
20 ments for Single Voltage External AC-DC and
21 AC-AC Power Supplies, version 1.1’ published
22 by the Environmental Protection Agency.

23 “(D)(i) Not later than July 1, 2011 the
24 Secretary shall publish a final rule to determine
25 whether the standards established under para-

graph (A) should be amended. Such rule shall provide that any amended standard shall apply to products manufactured on or after July 1, 2013.

“(ii) Not later than July 1, 2015 the Secretary shall publish a final rule to determine whether the standards established under paragraph (A) should be amended. Such rule shall provide that any amended standard shall apply to products manufactured on or after July 1, 2017.

“(7) An energy conservation standard for external power supplies shall not constitute an energy conservation standard for the separate end-use product to which it is connected.”.

SEC. 9015. STANDBY MODE.

Section 325 of the Energy Policy and Conservation Act (42 U.S.C. 6295) is amended—

(1) in subsection (u)—

(A) by striking paragraphs (2), (3), and (4); and

(B) by redesignating paragraph (5), and paragraphs (6) and (7) (as added by this Act) as paragraphs (2), (3), and (4), respectively; and

1 (2) by adding at the end the following new sub-
2 section:

3 “(ii) STANDBY MODE ENERGY USE.—

4 “(1) DEFINITIONS.—

5 “(A) IN GENERAL.—Unless the Secretary
6 determines otherwise pursuant to subparagraph
7 (B), the definitions in this subsection, for the
8 purpose of this subsection, shall apply:

9 “(i) The term ‘active mode’ means the
10 condition in which an energy using product
11 is connected to a mains power source, has
12 been activated, and provides one or more
13 main functions.

14 “(ii) The term ‘off mode’ means the
15 condition in which an energy using product
16 is connected to a mains power source and
17 is not providing any standby or active
18 mode function.

19 “(iii) The term ‘standby mode’ means
20 the condition in which an energy using
21 product is connected to a mains power
22 source and offers one or more of the fol-
23 lowing user oriented or protective func-
24 tions:

1 “(I) To facilitate the activation
2 or deactivation of other functions (in-
3 cluding active mode) by remote switch
4 (including remote control), internal
5 sensor, or timer.

6 “(II) Continuous functions, in-
7 cluding information or status displays
8 (including clocks) or sensor-based
9 functions.

10 “(B) AMENDED DEFINITIONS.—The Sec-
11 retary may, by rule, amend the definitions
12 under subparagraph (A), taking into consider-
13 ation the most current versions of Standards
14 62301 and 62087 of the International Electro-
15 technical Commission.

16 “(2) TEST PROCEDURES.—(A) Test procedures
17 for all covered products shall be amended pursuant
18 to section 323 to include standby mode and off mode
19 energy consumption, taking into consideration the
20 most current versions of Standards 62301 and
21 62087 of the International Electrotechnical Commis-
22 sion, with such energy consumption integrated into
23 the overall energy efficiency, energy consumption, or
24 other energy descriptor for each covered product,
25 unless the Secretary determines that—

1 “(i) the current test procedures for a cov-
2 ered product already fully account for and in-
3 corporate its standby mode and off mode energy
4 consumption; or

5 “(ii) such an integrated test procedure is
6 technically infeasible for a particular covered
7 product, whereupon the Secretary shall promul-
8 gate a separate standby mode and off mode en-
9 ergy use test procedure for such product, if
10 technically feasible.

11 “(B) The test procedure amendments required
12 by subparagraph (A) shall be prescribed in a final
13 rule no later than the following dates:

14 “(i) December 31, 2008, for battery char-
15 gers and external power supplies.

16 “(ii) March 31, 2009, for clothes dryers,
17 room air conditioners, and fluorescent lamp bal-
18 lasts.

19 “(iii) June 30, 2009, for residential clothes
20 washers.

21 “(iv) September 30, 2009, for residential
22 furnaces and boilers.

23 “(v) March 31, 2010, for residential water
24 heaters, direct heating equipment, and pool
25 heaters.

1 “(vi) March 31, 2011, for residential dish-
2 washers, ranges and ovens, microwave ovens,
3 and dehumidifiers.

4 “(C) The test procedure amendments adopted
5 pursuant to subparagraph (B) shall not be used to
6 determine compliance with product standards estab-
7 lished prior to the adoption of such amended test
8 procedures.

9 “(3) INCORPORATION INTO STANDARD.—Based
10 on the test procedures required under paragraph
11 (2), any final rule establishing or revising a standard
12 for a covered product, adopted after July 1, 2010,
13 shall incorporate standby mode and off mode energy
14 use into a single amended or new standard, pursu-
15 ant to subsection (o), where feasible. Where not fea-
16 sible, the Secretary shall promulgate within such
17 final rule a separate standard for standby mode and
18 off mode energy consumption, if justified under sub-
19 section (o).”.

20 **SEC. 9016. BATTERY CHARGERS.**

21 Section 325(u) is amended—

22 (1) in paragraph (1)(E)(i)—

23 (A) by inserting “(I)” after “(E)(i)”;

24 (B) by striking “battery chargers and”

25 each place it appears; and

1 (C) by adding at the end the following new
2 subclause:

3 “(II) Not later than July 1, 2011, the Secretary shall
4 issue a final rule that prescribes energy conservation
5 standards for battery chargers or classes of battery char-
6 gers or determine that no energy conservation standard
7 is technically feasible and economically justified.”; and

8 (2) in paragraph (4), by striking “3 years” and
9 inserting “2 years”.

10 **SEC. 9017. WALK-IN COOLERS AND WALK-IN FREEZERS.**

11 (a) DEFINITIONS.—Section 340 of the Energy Policy
12 and Conservation Act (42 U.S.C. 6311) is amended—

13 (1) in paragraph (1)—

14 (A) by redesignating subparagraphs (G)
15 through (K) as subparagraphs (H) through (L),
16 respectively; and

17 (B) by inserting after subparagraph (F)
18 the following:

19 “(G) Walk-in coolers and walk-in freez-
20 ers.”;

21 (2) by redesignating paragraphs (20) and (21)
22 as paragraphs (21) and (22), respectively; and

23 (3) by inserting after paragraph (19) the fol-
24 lowing:

1 “(20) The terms ‘walk-in cooler’ and ‘walk-in
2 freezer’ mean an enclosed storage space refrigerated
3 to temperatures, respectively, above and at or below
4 32 degrees Fahrenheit that can be walked into, and
5 has a total chilled storage area of less than 3000
6 square feet. These terms exclude products designed
7 and marketed exclusively for medical, scientific, or
8 research purposes.”.

9 (b) STANDARDS.—Section 342 of the Energy Policy
10 and Conservation Act (42 U.S.C. 6313) is amended by
11 adding at the end the following:

12 “(f) WALK-IN COOLERS AND WALK-IN FREEZERS.—
13 (1) Each walk-in cooler or walk-in freezer manufactured
14 on or after January 1, 2009, shall meet the following spec-
15 ifications:

16 “(A) Have automatic door closers that firmly
17 close all walk-in doors that have been closed to with-
18 in one inch of full closure. This requirement does
19 not apply to doors wider than 3 feet 9 inches or tall-
20 er than 7 feet.

21 “(B) Have strip doors, spring hinged doors, or
22 other method of minimizing infiltration when doors
23 are open.

24 “(C) Contain wall, ceiling, and door insulation
25 of at least R-25 for coolers and R-32 for freezers.

1 Door insulation requirements do not apply to glazed
2 portions of doors, nor to structural members.

3 “(D) Contain floor insulation of at least R-28
4 for freezers.

5 “(E) For evaporator fan motors of under one
6 horsepower and less than 460 volts, use either—

7 “(i) electronically commutated motors
8 (brushless direct current motors); or

9 “(ii) three-phase motors.

10 The portion of the requirement for electronically
11 commuted motors shall take effect January 1, 2009,
12 unless, prior to this date, the Secretary determines
13 that such motors are only available from one manu-
14 facturer. The Secretary may also allow other types
15 of motors if the Secretary determines that, on aver-
16 age, these other motors use no more energy in evap-
17 orator fan applications than electronically com-
18 mutated motors. The Secretary shall establish this
19 maximum energy consumption level no later than
20 January 1, 2010.

21 “(F) For condenser fan motors of under one
22 horsepower, use—

23 “(i) electronically commutated motors;

24 “(ii) permanent split capacitor-type mo-
25 tors; or

1 “(iii) three-phase motors.

2 “(G) For all interior lights, use light sources
3 with an efficacy of 40 lumens per watt or more, in-
4 cluding ballast losses (if any). Light sources with an
5 efficacy of 40 lumens per watt or less, including bal-
6 last losses (if any), may be used in conjunction with
7 a timer or device that turns off the lights within 15
8 minutes of when the walk-in cooler or walk-in freez-
9 er is not occupied.

10 “(2) Each walk-in cooler or walk-in freezer with
11 transparent reach-in doors manufactured on or after Jan-
12 uary 1, 2009, shall also meet the following specifications:

13 “(A) Transparent reach-in doors and windows
14 in walk-in doors for walk-in freezers shall be of tri-
15 ple-pane glass with either heat-reflective treated
16 glass or gas fill.

17 “(B) Transparent reach-in doors for walk-in
18 coolers and windows in walk-in doors shall be ei-
19 ther—

20 “(i) double-pane glass with heat-reflective
21 treated glass and gas fill; or

22 “(ii) triple pane glass with either heat-re-
23 flective treated glass or gas fill.

24 “(C) If the appliance has an antisweat heater
25 without antisweat heat controls, then the appliance

1 shall have a total door rail, glass, and frame heater
2 power draw of no more than 7.1 watts per square
3 foot of door opening (for freezers) and 3.0 watts per
4 square foot of door opening (for coolers).

5 “(D) If the appliance has an antisweat heater
6 with antisweat heat controls, and the total door rail,
7 glass, and frame heater power draw is more than 7.1
8 watts per square foot of door opening (for freezers)
9 and 3.0 watts per square foot of door opening (for
10 coolers), then the antisweat heat controls shall re-
11 duce the energy use of the antisweat heater in an
12 amount corresponding to the relative humidity in the
13 air outside the door or to the condensation on the
14 inner glass pane.

15 “(3) Not later than January 1, 2012, the Sec-
16 retary shall publish performance-based standards for
17 walk-in coolers and walk-in freezers that achieve the
18 maximum improvement in energy which the Sec-
19 retary determines is technologically feasible and eco-
20 nomically justified. Such standards shall apply to
21 products manufactured three years after the final
22 rule is published unless the Secretary determines, by
23 rule, that three years is inadequate, in which case
24 the Secretary may set an effective date for products

1 manufactured no greater than five years after the
2 date of publication of a final rule for these products.

3 “(4) Not later than January 1, 2020, the Sec-
4 retary shall publish a final rule to determine if the
5 standards established under paragraph (3) should be
6 amended. The rule shall provide that such standards
7 shall apply to products manufactured three years
8 after the final rule is published unless the Secretary
9 determines, by rule, that three years is inadequate,
10 in which case the Secretary may set an effective date
11 for products manufactured no greater than five
12 years after the date of publication of a final rule for
13 these products.”.

14 (c) TEST PROCEDURES.—Section 343(a) of the En-
15 ergy Policy and Conservation Act (42 U.S.C. 6314(a)) is
16 amended by adding at the end the following:

17 “(9) For walk-in coolers and walk-in freezers:

18 “(A) R value is defined as 1/K factor multiplied
19 by the thickness of the panel. K factor shall be
20 based on ASTM test procedure C518-2004. For cal-
21 culating R value for freezers, the K factor of the
22 foam at 20F (average foam temperature) shall be
23 used. For calculating R value for coolers the K fac-
24 tor of the foam at 55F (average foam temperature)
25 shall be used.

1 “(B) Not later than January 1, 2010, the Sec-
2 retary shall establish a test procedure to measure
3 the energy-use of walk-in coolers and walk-in freez-
4 ers. Such test procedure may be based on computer
5 modeling, if the computer model or models have
6 been verified using the results of laboratory tests on
7 a significant sample of walk-in coolers and walk-in
8 freezers.”.

9 (d) LABELING.—Section 344(e) of the Energy Policy
10 and Conservation Act (42 U.S.C. 6315(e)) is amended by
11 inserting “walk-in coolers and walk-in freezers,” after
12 “commercial clothes washers,” each place it appears.

13 (e) ADMINISTRATION, PENALTIES, ENFORCEMENT,
14 AND PREEMPTION.—Section 345 of the Energy Policy and
15 Conservation Act (42 U.S.C. 6316), is amended—

16 (1) by striking “subparagraphs (B), (C), (D),
17 (E), and (F)” and inserting “subparagraphs (B),
18 (C), (D), (E), (F), and (G)” each place it appears;
19 and

20 (2) by adding at the end the following:

21 “(h)(1)(A)(i) Except as provided in clause (ii) and
22 paragraphs (2) and (3), section 327 shall apply to walk-
23 in coolers and walk-in freezers for which standards have
24 been established under paragraphs (1) and (2) of section
25 342(f) to the same extent and in the same manner as the

1 section applies under part A on the date of enactment of
2 this subsection.

3 “(ii) Any State standard issued before the date of en-
4 actment of this subsection shall not be preempted until
5 the standards established under paragraphs (1) and (2)
6 of section 342(f) take effect.

7 “(B) In applying section 327 to the equipment under
8 subparagraph (A), paragraphs (1), (2), and (3) of sub-
9 section (a) shall apply.

10 “(2)(A) If the Secretary does not issue a final rule
11 for a specific type of walk-in cooler or walk-in freezer with-
12 in the time frame specified in section 342(f)(3) or (4),
13 subsections (b) and (c) of section 327 shall no longer apply
14 to the specific type of walk-in cooler or walk-in freezer for
15 the period beginning on the day after the scheduled date
16 for a final rule and ending on the date on which the Sec-
17 retary publishes a final rule covering the specific type of
18 walk-in cooler or walk-in freezer.

19 “(B) Any State standard issued before the publica-
20 tion of the final rule shall not be preempted until the
21 standards established in the final rule take effect.

22 “(3) Any standard issued in the State of California
23 before January 1, 2011, under Title 20 of the California
24 Code of Regulations, which refers to walk-in coolers and
25 walk-in freezers, for which standards have been estab-

lished under paragraphs (1) and (2) of section 342(f),
shall not be preempted until the standards established
under paragraph (3) of section 342(f) take effect.”.

PART 2—LIGHTING EFFICIENCY

SEC. 9021. EFFICIENT LIGHT BULBS.

(a) PROHIBITION.—

(1) REGULATIONS.—Not later than 1 year after
the date of enactment of this Act, the Secretary of
Energy shall issue regulations—

(A) prohibiting the sale of 100 watt gen-
eral service incandescent lamps after January
1, 2012, unless those lamps emit at least 60
lumens per watt;

(B) prohibiting the sale of general service
lamps manufactured after the effective dates
shown in the table below that do not meet the
minimum efficacy levels (lumens/watt) shown in
the following table:

Minimum Efficacy Levels and Effective Dates

Lumen Range (Lumens)	Minimum Efficacy (Lumens/Watt)	Effective Dates
200–449	15	1/1/2014
450–699	17	1/1/2014
700–999	20	1/1/2013
1000–1500	22	1/1/2012
1501–3000	24	1/1/2012

1 (C) after January 1, 2020, prohibiting the
2 sale of general service lamps that emit less than
3 300 percent of the average lumens per watt
4 emitted by 100 watt incandescent general serv-
5 ice lamps that are commercially available as of
6 the date of enactment of this Act;

7 (D) establishing a minimum color ren-
8 dering index (CRI) of 80 or higher for all gen-
9 eral service lamps manufactured as of the effec-
10 tive dates in subparagraph (B); and

11 (E) prohibiting the manufacture or import
12 for sale in the United States of an adapter de-
13 vice designed to allow a lamp with a different
14 base to fit into a medium screw base socket
15 manufactured after January 1, 2009.

16 (2) EXEMPTIONS.—The regulations issued
17 under paragraph (1) shall include procedures for the
18 Secretary to exempt specialty lamps from the re-
19 quirements of paragraph (1). The Secretary may
20 provide such an exemption only in cases where the
21 Secretary finds, after a hearing and opportunity for
22 public comment, that it is not technically feasible to
23 serve a specialized lighting application, such as a
24 military, medical, public safety application, or in cer-
25 tified historic lighting applications using bulbs that

1 meet the requirements of paragraph (1). In addition,
2 the Secretary shall include as an additional criterion
3 that exempted products are unlikely to be used in
4 the general service lighting applications.

5 (3) ADDITIONAL LAMPS TYPES.—

6 (A) Manufacturers of rough service, vibra-
7 tion service, vibration resistant, appliance, shat-
8 ter resistant, and three-way lamps shall report
9 annual sales volume to the Secretary. If the
10 Secretary determines that annual sales volume
11 for any of these lamp types increases by 100
12 percent relative to 2009 sales in any later year,
13 then such lamps shall be subject to the fol-
14 lowing standards:

15 (i) Appliance lamps shall use no more
16 than 40 watts.

17 (ii) Rough service lamps shall use no
18 more than 40 watts.

19 (iii) Vibration service and vibration
20 resistant lamps shall use no more than 40
21 watts.

22 (iv) Three-way lamps shall comply
23 with the standards in paragraph (1) at
24 each level of rated lumen output.

1 (B) Rough service, vibration service, vibra-
2 tion resistant, appliance, shatter resistant, and
3 three-way lamps shall be available for sale at
4 retail in single packs only.

5 (4) CIVIL PENALTY.—The Secretary of Energy
6 shall include in regulations under this subsection a
7 schedule of appropriate civil penalties for violations
8 of the prohibitions under this subsection. Such pen-
9 alties shall be in an amount sufficient to ensure
10 compliance with this section.

11 (5) STATE PREEMPTION.—State standards for
12 general service lamps are preempted as of the date
13 of enactment of this Act, except—

14 (A) any State standard already enacted or
15 adopted as of the date of enactment of this Act
16 may be enforced until the Federal effective
17 dates for each lamp category, and such States
18 may modify existing State standards for general
19 service lamps to conform with the standards in
20 paragraph (1) at any time;

21 (B) any State standard identical to the
22 standards in paragraph (1)(B) with an effective
23 date no sooner than January 1, 2015; and

1 (C) any State standard identical to Fed-
2 eral standards, after such Federal standards
3 are in effect.

4 (6) DEFINITIONS.—For purposes of this sec-
5 tion, the following definitions apply:

6 (A) The term “general service lamp”
7 means a nonreflectorized lamp that—

8 (i) is intended for general service ap-
9 plications;

10 (ii) has a medium screw base;

11 (iii) has an initial lumen output no
12 less than 200 lumens and no more than
13 3000 lumens;

14 (iv) has an input voltage range at
15 least partially within 110 and 130 volts;

16 (v) has a A-15, A-19, A-21, A-23,
17 A-25, PS-25, PS-30, BT-14.5, BT-15,
18 CP-19, TB-19, CA-22, or similar shape
19 as defined in ANSI C78.20-2003; and

20 (vi) has a bulb finish of the frosted,
21 clear, soft white, modified spectrum, en-
22 hanced spectrum, full spectrum, or equiva-
23 lent type.

24 The following incandescent lamps are not gen-
25 eral service lamps: appliance, black light, bug,

1 colored, infrared, left-hand thread, marine, ma-
2 rine signal service, mine service, plant light, re-
3 flector, rough service, shatter resistant, sign
4 service, silver bowl, three-way, traffic signal,
5 and vibration service or vibration resistant.

6 (B) The term “appliance lamp” means any
7 lamp specifically designed to operate in a house-
8 hold appliance. Examples of appliance lamps in-
9 clude oven lamps, refrigerator lamps, and vacu-
10 um cleaner lamps.

11 (C) The term “black light lamp” means a
12 lamp that emits radiant energy in the UV-A
13 band (315-400 nm) and is designated and mar-
14 keted as a “black light”.

15 (D) The term “bug lamp” means a lamp
16 that contains a filter to suppress the blue and
17 green portions of the visible spectrum and is
18 designated and marketed as a “bug light”.

19 (E) The term “colored incandescent lamp”
20 means an incandescent lamp designated and
21 marketed as a colored lamp that has a CRI of
22 less than 50, as determined according to the
23 test method given in CIE publication 13.2, and
24 has a correlated color temperature less than
25 2,500K, or greater than 4,600K, where cor-

1 related color temperature is defined as the ab-
2 solute temperature of a blackbody whose chro-
3 maticity nearly resembles that of the light
4 source.

5 (F) The term “infrared lamp” means a
6 lamp that radiates predominately in the infra-
7 red region of the electromagnetic spectrum, and
8 where visible radiation is not of principal inter-
9 est.

10 (G) The term “lamp” means an electrical
11 appliance that includes a glass envelope and
12 produces optical radiation for the purpose of
13 visual illumination, designed to be installed into
14 a luminaire by means of an integral lamp-hold-
15 er. Types of lamps include incandescent, fluo-
16 rescent, and high intensity discharge (high
17 pressure sodium and metal halide).

18 (H) The term “left-handed thread lamp”
19 means a lamp on which the base screws into a
20 lamp socket in a counter-clockwise direction,
21 and screws out of a lamp socket in a clockwise
22 direction.

23 (I) The term “marine lamp” means a lamp
24 specifically designed and marketed to operate in
25 a marine application.

1 (J) The term “marine signal service lamp”
2 means a lamp specifically designed to provide
3 signals to marine vessels for seaway safety.

4 (K) The term “mine service lamp” means
5 a lamp specifically designed and marketed for
6 use in mine applications.

7 (L) The term “plant light lamp” means a
8 lamp that contains a filter to suppress yellow
9 and green portions of the spectrum and is des-
10 ignated and marketed as a “plant light”.

11 (M) The term “rough service lamp” means
12 a lamp that has a minimum of 5 supports with
13 filament configurations similar to but not lim-
14 ited to C7A, C11, C17, and C22 as listed in
15 Figure 6–12 of the 9th edition of the IESNA
16 Lighting handbook, where lead wires are not
17 counted as supports and that is designated and
18 marketed specifically for “rough service” appli-
19 cations.

20 (N) The term “shatter resistant lamp”
21 means a lamp with an external coating on the
22 bulb wall to resist breakage and which is des-
23 ignated and marketed as a shatter resistant
24 lamp.

1 (O) The term “showcase lamp” means a
2 lamp that has a tubular bulb with a conven-
3 tional screw base and which is designated and
4 marketed as a showcase lamp.

5 (P) The term “sign service lamp” means a
6 lamp of the vacuum type or gas-filled with suf-
7 ficiently low bulb temperature to permit ex-
8 posed outdoor use on high-speed flashing cir-
9 cuits. The designation shall be on the lamp
10 packaging, and marketing materials shall iden-
11 tify the lamp as being a sign service lamp.

12 (Q) The term “silver bowl lamp” means a
13 lamp that has a reflective coating applied di-
14 rectly to part of the bulb surface and that re-
15 flects light in a backward direction toward the
16 lamp base. The designation shall be on the
17 lamp packaging, and marketing materials shall
18 identify the lamp as being a silver bowl lamp or
19 similar designation.

20 (R) The term “three-way lamp” means a
21 lamp that employs two filaments, operated sep-
22 arately and in combination, to provide three
23 light levels. The designation shall be on the
24 lamp packaging, and marketing materials shall
25 identify the lamp as being a three-way lamp.

1 (S) The term “traffic signal lamp” means
2 a lamp that is designed with lifetime, wattage,
3 focal length, filament configuration, mounting,
4 lamp glass, and lamp base characteristics ap-
5 propriate for use in traffic signals.

6 (T) The term “vibration service lamp” or
7 “vibration resistant lamp” means a lamp with
8 filament configurations similar to but not lim-
9 ited to C-5, C-7A, or C-9, as listed in Figure
10 6–12 of the 9th Edition of the IESNA Lighting
11 Handbook. The lamp is designated and mar-
12 keted specifically for vibration service or vibra-
13 tion resistant applications. The designation
14 shall be on the lamp packaging, and marketing
15 materials shall identify the lamp as being vibra-
16 tion resistant or vibration service.

17 (b) INCENTIVE PLAN AND PUBLIC EDUCATION.—

18 (1) INCENTIVE PLAN.—Not later than 6
19 months after the date of enactment of this Act, the
20 Secretary of Energy shall transmit to the Congress
21 a plan for encouraging and providing incentives for
22 the domestic production of light bulbs by United
23 States manufacturers that meet the efficacy levels
24 shown in the table in subsection (a)(1)(B).

1 (2) LABELING RULEMAKING.—The Federal
2 Trade Commission shall conduct a rulemaking to
3 consider the effectiveness of current lamp labeling
4 requirements and to consider alternative labeling ap-
5 proaches that will help consumers to understand new
6 high-efficiency lamp products. Such labeling shall in-
7 clude, at a minimum, information on lighting output
8 (lumens), input power (watts), efficiency (lumens per
9 watt), lamp rated lifetime (hours), annual or lifetime
10 energy operating cost, and any hazardous materials
11 (such as mercury) that may be contained in lamp
12 products. The Federal Trade Commission shall com-
13 plete this rulemaking within one year after the date
14 of enactment of this Act.

15 (3) NATIONAL SALES DATA TRACKING SYS-
16 TEM.—The Secretary of Energy shall develop and
17 implement within one year after the date of enact-
18 ment of this Act a national sales data tracking sys-
19 tem in conjunction with the National Electrical
20 Manufacturers Association and other stakeholders
21 for lamp technologies, including Light Emitting Di-
22 odes, halogens, incandescents, and compact fluores-
23 cent lamps.

24 (c) REPORT ON MERCURY USE AND RELEASE.—Not
25 later than 1 year after the date of enactment of this Act,

1 the Secretary of Energy, in cooperation with the Adminis-
2 trator of the Environmental Protection Agency, shall sub-
3 mit to Congress a report describing recommendations re-
4 lating to the means by which the Federal Government may
5 reduce or prevent the release of mercury during the manu-
6 facture, transportation, storage, or disposal of general
7 service lamps.

8 **SEC. 9022. INCANDESCENT REFLECTOR LAMPS.**

9 (a) DEFINITIONS.—Section 321 of the Energy Policy
10 and Conservation Act (42 U.S.C. 6291) is amended—

11 (1) in paragraph (30)(C)(ii)—

12 (A) in the matter preceding subclause

13 (I)—

14 (i) by striking “or similar bulb shapes

15 (excluding ER or BR)” and inserting “ER,

16 BR, BPAR, or similar bulb shapes”; and

17 (ii) by striking “2.75” and inserting

18 “2.25”; and

19 (B) by striking “is either—” and all that

20 follows through subclause (II) and inserting

21 “has a rated wattage that is greater than 40

22 watts.”; and

23 (2) by adding at the end the following:

1 “(53) The term ‘BPAR incandescent reflector
2 lamp’ means a reflector lamp as shown in figure
3 C78.21–278 on page 32 of ANSI C78.21–2003.

4 “(54)(A) The term ‘BR incandescent reflector
5 lamp’ means a reflector lamp that has—

6 “(i) a bulged section below the major di-
7 ameter of the bulb and above the approximate
8 baseline of the bulb, as shown in figure 1 (RB)
9 on page 7 of ANSI C79.1–1994, incorporated
10 by reference in section 430.22 of title 10, Code
11 of Federal Regulations (as in effect on the date
12 of enactment of this paragraph); and

13 “(ii) a finished size and shape shown in
14 ANSI C78.21–1989, including the referenced
15 reflective characteristics in part 7 of ANSI
16 C78.21.

17 “(B) The term ‘BR30’ refers to a BR incandes-
18 cent reflector lamp with a diameter of 30/8ths of an
19 inch and the term ‘BR40’ refers to a BR incandes-
20 cent reflector lamp with a diameter of 40/8ths of an
21 inch.

22 “(55)(A) The term ‘ER incandescent reflector
23 lamp’ means a reflector lamp that has—

24 “(i) an elliptical section below the major
25 diameter of the bulb and above the approximate

1 baseline of the bulb, as shown in figure 1 (RE)
2 on page 7 of ANSI C79.1–1994, incorporated
3 by reference in section 430.22 of title 10, Code
4 of Federal Regulations (as in effect on the date
5 of enactment of this paragraph); and

6 “(ii) a finished size and shape shown in
7 ANSI C78.21–1989, incorporated by reference
8 in section 430.22 of title 10, Code of Federal
9 Regulations (as in effect on the date of enact-
10 ment of this paragraph).

11 “(B) The term ‘ER30’ refers to an ER incan-
12 descent reflector lamp with a diameter of 30/8ths of
13 an inch and the term ‘ER40’ refers to an ER incan-
14 descent reflector lamp with a diameter of 40/8ths of
15 an inch.

16 “(56) The term ‘R20 incandescent reflector
17 lamp’ means a reflector lamp that has a face diame-
18 ter of approximately 2.5 inches, as shown in figure
19 1(R) on page 7 of ANSI C79.1–1994.”.

20 (b) STANDARDS FOR FLUORESCENT LAMPS AND IN-
21 CANDESCENT REFLECTOR LAMPS.—Section 325(i) of the
22 Energy Policy and Conservation Act (42 U.S.C. 6925(i))
23 is amended by striking paragraph (1) and inserting the
24 following:

25 “(1) STANDARDS.—

1 “(A) DEFINITION OF EFFECTIVE DATE.—

2 In this paragraph, except as specified in sub-
 3 paragraphs (C) and (D), the term ‘effective
 4 date’ means, with respect to each type of lamp
 5 specified in a table contained in subparagraph
 6 (B), the last day of the period of months cor-
 7 responding to that type of lamp, as specified in
 8 the table, that follows the date of enactment of
 9 the Energy Efficiency Improvement Act of
 10 2007.

11 “(B) MINIMUM STANDARDS.—Each of the
 12 following general service fluorescent lamps and
 13 incandescent reflector lamps manufactured
 14 after the effective date specified in the tables
 15 contained in this paragraph shall meet or ex-
 16 ceed the following lamp efficacy and CRI stand-
 17 ards:

“FLUORESCENT LAMPS

Lamp Type	Nominal Lamp Wattage	Minimum CRI	Minimum Average Lamp Efficacy (LPW)	Effective Date (Pe- riod of Months)
4-foot medium bi-pin	>35 W	69	75.0	36
	≤35 W	45	75.0	36
2-foot U-shaped	>35 W	69	68.0	36
	≤35 W	45	64.0	36
8-foot slimline	65 W	69	80.0	18
	≤65 W	45	80.0	18
8-foot high output	>100 W	69	80.0	18
	≤100 W	45	80.0	18

“INCANDESCENT REFLECTOR LAMPS

Nominal Lamp Wattage	Minimum Average Lamp Efficacy (LPW)	Effective Date (Pe- riod of Months)
40–50	10.5	36
51–66	11.0	36
67–85	12.5	36
86–115	14.0	36
116–155	14.5	36
156–205	15.0	36

1 “(C) EXEMPTIONS.—The standards speci-
2 fied in subparagraph (B) shall not apply to the
3 following types of incandescent reflector lamps:

4 “(i) Lamps rated at 50 watts or less
5 of the following types: ER30, BR30,
6 BR40, and ER40 lamps.

7 “(ii) Lamps rated at 65 watts of the
8 following types: BR30, BR40, and ER40
9 lamps.

10 “(iii) R20 incandescent reflector
11 lamps of 45 watts or less.

12 “(D) EFFECTIVE DATES.—

13 “(i) ER, BR, AND BPAR LAMPS.—Ex-
14 cept as provided in subparagraph (A), the
15 standards specified in subparagraph (B)
16 shall apply with respect to ER incandes-
17 cent reflector lamps, BR incandescent re-
18 flector lamps, BPAR incandescent reflector
19 lamps, and similar bulb shapes on and
20 after January 1, 2008.

1 “(ii) LAMPS BETWEEN 2.25–2.75
2 INCHES IN DIAMETER.—The standards
3 specified in subparagraph (B) shall apply
4 with respect to incandescent reflector
5 lamps with a diameter of more than 2.25
6 inches, but not more than 2.75 inches, on
7 and after January 1, 2008.”.

8 **SEC. 9023. USE OF ENERGY EFFICIENT LIGHTING FIXTURES**
9 **AND BULBS.**

10 (a) IN GENERAL.—Chapter 33 of title 40, United
11 States Code, is amended—

12 (1) by redesignating sections 3313, 3314, and
13 3315 as sections 3314, 3315, and 3316, respectively;
14 and

15 (2) by inserting after section 3312 the fol-
16 lowing:

17 **“§ 3313. Use of energy efficient lighting fixtures and**
18 **bulbs**

19 “(a) CONSTRUCTION AND ALTERATION OF PUBLIC
20 BUILDINGS.—Each public building constructed or signifi-
21 cantly altered by the Administrator of General Services
22 shall be equipped, to the maximum extent feasible as de-
23 termined by the Administrator, with lighting fixtures and
24 bulbs that are energy efficient.

1 “(b) MAINTENANCE OF PUBLIC BUILDINGS.—Each
2 lighting fixture or bulb that is replaced by the Adminis-
3 trator in the normal course of maintenance of public build-
4 ings shall be replaced, to the maximum extent feasible as
5 determined by the Administrator, with a lighting fixture
6 or bulb that is energy efficient.

7 “(c) CONSIDERATIONS.—In making a determination
8 under this section concerning the feasibility of installing
9 a lighting fixture or bulb that is energy efficient, the Ad-
10 ministrator shall consider—

11 “(1) the life cycle cost effectiveness of the fix-
12 ture or bulb;

13 “(2) the compatibility of the fixture or bulb
14 with existing equipment;

15 “(3) whether use of the fixture or bulb could re-
16 sult in interference with productivity;

17 “(4) the aesthetics relating to use of the fixture
18 or bulb; and

19 “(5) such other factors as the Administrator
20 determines appropriate.

21 “(d) ENERGY STAR.—A lighting fixture or bulb shall
22 be treated as being energy efficient for purposes of this
23 section if—

24 “(1) the fixture or bulb is certified under the
25 Energy Star program established by section 324A of

1 the Energy Policy and Conservation Act (42 U.S.C.
2 6294a);

3 “(2) in the case of all LED luminaires, lamps,
4 and systems whose efficacy (lumens per watt) and
5 Color Rendering Index (CRI) meet the requirements
6 for minimum luminaire efficacy and CRI for the En-
7 ergy Star certification, as verified by an independent
8 third-party testing laboratory that conducts its tests
9 according to the procedures and recommendations of
10 the Illuminating Engineering Society of North
11 America, even if these luminaires, lamps, and sys-
12 tems have not received such certification; or

13 “(3) the Administrator has otherwise deter-
14 mined that the fixture or bulb is energy efficient.

15 “(e) SIGNIFICANT ALTERATIONS.—A public building
16 shall be treated as being significantly altered for purposes
17 of subsection (a) if the alteration is subject to congres-
18 sional approval under section 3307.

19 “(f) EFFECTIVE DATE.—The requirements of sub-
20 sections (a) and (b) shall take effect one year after the
21 date of enactment of this subsection.”.

22 (b) CONFORMING AMENDMENT.—The analysis for
23 chapter 33 of title 40, United States Code, is amended
24 by striking the items relating to sections 3313, 3314, and
25 3315 and inserting the following:

“3313. Use of energy efficient lighting fixtures and bulbs.

“3314. Delegation.

“3315. Report to Congress.

“3316. Certain authority not affected.”.

1 **SEC. 9024. METAL HALIDE LAMP FIXTURES.**

2 (a) DEFINITIONS.—Section 321 of the Energy Policy
3 and Conservation Act (42 U.S.C. 6291) is amended by
4 adding at the end the following:

5 “(57) The term ‘ballast’ means a device used
6 with an electric discharge lamp to obtain necessary
7 circuit conditions (voltage, current, and waveform)
8 for starting and operating.

9 “(58) The term ‘metal halide lamp’ means a
10 high intensity discharge lamp in which the major
11 portion of the light is produced by radiation of metal
12 halides and their products of dissociation, possibly in
13 combination with metallic vapors.

14 “(59) The term ‘metal halide lamp fixture’
15 means a light fixture for general lighting application
16 designed to be operated with a metal halide lamp
17 and a ballast for a metal halide lamp.

18 “(60) The term ‘metal halide ballast’ means a
19 ballast used to start and operate metal halide lamps.

20 “(61) The term ‘pulse-start metal halide bal-
21 last’ means an electronic or electromagnetic ballast
22 that starts a pulse start metal halide lamp with high
23 voltage pulses. Lamps are started by first providing
24 a high voltage pulse for ionization of the gas to

1 produce a glow discharge. To complete the starting
2 process, power is provided by the ballast to sustain
3 the discharge through the glow-to-arc transition.

4 “(62) The term ‘probe-start metal halide bal-
5 last’ means a ballast that starts a probe start metal
6 halide lamp which contains a third starting electrode
7 (probe) in the arc tube. This ballast does not gen-
8 erally contain an igniter and instead starts lamps
9 with high ballast open circuit voltage.

10 “(63) The term ‘electronic ballast’ means a de-
11 vice that uses semiconductors as the primary means
12 to control lamp starting and operation.

13 “(64) The term ‘general lighting application’
14 means lighting that provides an interior or exterior
15 area with overall illumination.

16 “(65) The term ‘ballast efficiency’ for a high in-
17 tensity discharge fixture means the efficiency of a
18 lamp and ballast combination, expressed as a per-
19 centage, and calculated by $\text{Efficiency} = P_{\text{out}}/P_{\text{in}}$, as
20 measured. P_{out} is the measured operating lamp
21 wattage, and P_{in} is the measured operating input
22 wattage. The lamp, and the capacitor when it is pro-
23 vided, is to constitute a nominal system in accord-
24 ance with the ANSI Standard C78.43-2004. P_{in} and
25 P_{out} are to be measured after lamps have been sta-

1 bilized according to Section 4.4 of ANSI Standard
2 C82.6-2005 using a wattmeter with accuracy speci-
3 fied in Section 4.5 of ANSI Standard C82.6-2005
4 for ballasts with a frequency of 60 Hz, and shall
5 have a basic accuracy of ± 0.5 percent at the higher
6 of—

7 “(A) three times the output operating fre-
8 quency of the ballast; or

9 “(B) 2 kHz for ballast with a frequency
10 greater than 60 Hz.

11 The Secretary may, by rule, modify this definition if
12 he determines that such modification is necessary or
13 appropriate to carry out the purposes of this Act.”.

14 (b) COVERAGE.—Section 322(a) of the Energy Policy
15 and Conservation Act (42 U.S.C. 6292(a)) is amended—

16 (1) by redesignating paragraph (19) as para-
17 graph (20); and

18 (2) by inserting after paragraph (18) the fol-
19 lowing:

20 “(19) Metal halide lamp fixtures.”.

21 (c) TEST PROCEDURES.—Section 323(c) of the En-
22 ergy Policy and Conservation Act (42 U.S.C. 6293(c)) is
23 amended by adding at the end the following:

24 “(17) Test procedures for metal halide lamp ballasts
25 shall be based on American National Standards Institute

1 Standard C82.6-2005, entitled ‘Ballasts for High Inten-
2 sity Discharge Lamps—Method of Measurement’.”.

3 (d) LABELING.—Section 324(a)(2) of the Energy
4 Policy and Conservation Act (42 U.S.C. 6294(a)(2)) is
5 amended—

6 (1) by redesignating subparagraphs (C) through
7 (G) as subparagraphs (D) through (H), respectively;
8 and

9 (2) by inserting after subparagraph (B) the fol-
10 lowing:

11 “(C) The Commission shall prescribe labeling rules
12 under this section applicable to the covered product speci-
13 fied in paragraph (19) of section 322(a) and to which
14 standards are applicable under section 325. Such rules
15 shall provide that the labeling of any metal halide lamp
16 fixture manufactured on or after the later of January 1,
17 2009, or nine months after enactment of this subpara-
18 graph, will indicate conspicuously, in a manner prescribed
19 by the Commission under subsection (b) by July 1, 2008,
20 a capital letter ‘E’ printed within a circle on the packaging
21 of the fixture, and on the ballast contained in such fix-
22 ture.”.

23 (e) STANDARDS.—Section 325 of the Energy Policy
24 and Conservation Act (42 U.S.C. 6295) is amended—

1 (1) by redesignating subsection (gg) as sub-
2 section (hh);

3 (2) by inserting after subsection (ff) the fol-
4 lowing:

5 “(gg) METAL HALIDE LAMP FIXTURES.—

6 “(1)(A) Metal halide lamp fixtures designed to
7 be operated with lamps rated greater than or equal
8 to 150 watts but less than or equal to 500 watts
9 shall contain—

10 “(i) a pulse-start metal halide ballast with
11 a minimum ballast efficiency of 88 percent;

12 “(ii) a magnetic probe-start ballast with a
13 minimum ballast efficiency of 94 percent; or

14 “(iii) a non-pulse-start electronic ballast
15 with a minimum ballast efficiency of 92 percent
16 for wattages greater than 250 watts and a min-
17 imum ballast efficiency of 90 percent for watt-
18 ages less than or equal to 250 watts.

19 “(B) The standards in subparagraph (A) do not
20 apply to fixtures with regulated lag ballasts, fixtures
21 that use electronic ballasts that operate at 480 volts,
22 or fixtures that meet all of the following criteria:

23 “(i) Rated only for 150 watt lamps.

1 “(ii) Rated for use in wet locations as
2 specified by the National Electrical Code 2002,
3 Section 410.4(A).

4 “(iii) Contain a ballast that is rated to op-
5 erate at ambient air temperatures above 50° C
6 as specified by UL 1029–2001.

7 “(C) The standard in subparagraph (A) shall
8 apply to metal halide lamp fixtures manufactured on
9 or after the later of January 1, 2009, or 9 months
10 after the date of enactment of this subsection.

11 “(2) Not later than January 1, 2012, the Sec-
12 retary shall publish a final rule to determine whether
13 the standards established under paragraph (1)
14 should be amended. Such final rule shall contain the
15 amended standards, if any, and shall apply to prod-
16 ucts manufactured after January 1, 2015.

17 “(3) Not later than January 1, 2019, the Sec-
18 retary shall publish a final rule to determine whether
19 the standards then in effect should be amended.
20 Such final rule shall contain the amended standards,
21 if any, and shall apply to products manufactured
22 after January 1, 2022.

23 “(4) Notwithstanding any other provision of
24 law, any standard established pursuant to this sub-

1 section may contain both design and performance re-
2 quirements.”; and

3 (3) in subsection (hh), as so redesignated by
4 paragraph (1) of this subsection, by striking “(ff)”
5 both places it appears and inserting “(gg)”.

6 (f) EFFECT ON OTHER LAW.—Section 327(c) of the
7 Energy Policy and Conservation Act (42 U.S.C. 6297(c))
8 is amended—

9 (1) by striking the period at the end of para-
10 graph (8)(B) and inserting “; and”; and

11 (2) by adding at the end the following:

12 “(9) is a regulation concerning metal halide
13 lamp fixtures adopted by the California Energy
14 Commission on or before January 1, 2011. If the
15 Secretary fails to issue a final rule within 6 months
16 after the deadlines for rulemakings in section
17 325(gg) then, notwithstanding any other provision of
18 this section, preemption does not apply to a regula-
19 tion concerning metal halide lamp fixtures adopted
20 by the California Energy Commission on or before
21 July 1, 2015, if the Secretary misses the deadline
22 specified in paragraph (2) of section 325(gg), or on
23 or before July 1, 2022, if the Secretary misses the
24 deadline specified in paragraph (3) of section
25 325(gg).”.

1 **PART 3—RESIDENTIAL BUILDING EFFICIENCY**

2 **SEC. 9031. ENCOURAGING STRONGER BUILDING CODES.**

3 (a) IN GENERAL.—Section 304 of the Energy Con-
4 servation and Production Act (42 U.S.C. 6833) is amend-
5 ed to read as follows:

6 **“SEC. 304. UPDATING STATE BUILDING ENERGY EFFI-**
7 **CIENCY CODES.**

8 “(a) UPDATING NATIONAL MODEL BUILDING EN-
9 ERGY CODES.—(1) The Secretary shall support updating
10 the national model building energy codes and standards
11 at least every three years to achieve overall energy savings,
12 compared to the 2006 IECC for residential buildings and
13 ASHRAE Standard 90.1 2004 for commercial buildings,
14 of at least—

15 “(A) 30 percent by 2010;

16 “(B) 50 percent by 2020; and

17 “(C) targets to be set by the Secretary in inter-
18 mediate and subsequent years, at the maximum level
19 of energy efficiency that is technologically feasible
20 and life-cycle cost effective.

21 “(2)(A) Whenever the provisions of the IECC or
22 ASHRAE Standard 90.1 regarding building energy use
23 are revised, the Secretary shall, not later than 6 months
24 after the date of such revision, determine—

25 “(i) whether such revision will improve energy
26 efficiency in buildings; and

1 “(ii) whether such revision will meet the targets
2 under paragraph (1).

3 “(B) If the Secretary makes a determination under
4 subparagraph (A)(ii) that a code or standard does not
5 meet the targets under paragraph (1), or if a national
6 model code or standard is not updated for more than three
7 years, then the Secretary shall within 12 months propose
8 a modified code or standard that meets such targets. Any
9 such modified code or standard shall achieve the maximum
10 level of energy savings that are technically feasible and
11 economically justified, incorporating available appliances,
12 technologies, materials, and construction practices. The
13 modified code or standard shall serve as the baseline for
14 the next determination under subparagraph (A)(i).

15 “(C) The Secretary shall provide the opportunity for
16 public comment on targets, determinations, and modified
17 codes and standards under this subsection, and shall pub-
18 lish notice of targets, determinations, and modified codes
19 and standards under this subsection in the Federal Reg-
20 ister.

21 “(b) STATE CERTIFICATION OF BUILDING ENERGY
22 CODE UPDATES.—(1) Not later than 2 years after the
23 date of enactment of the Energy Efficiency Improvement
24 Act of 2007, each State shall certify to the Secretary that
25 it has reviewed and updated the provisions of its residen-

1 tial and commercial building codes regarding energy effi-
2 ciency. Such certification shall include a demonstration
3 that such State's code provisions meet or exceed the 2006
4 IECC for residential buildings and the ASHRAE Stand-
5 ard 90.1–2004 for commercial buildings, or achieve equiv-
6 alent or greater energy savings.

7 “(2)(A) If the Secretary makes an affirmative deter-
8 mination under subsection (a)(2)(A)(i) or proposes a
9 modified code or standard under subsection (a)(2)(B),
10 each State shall within 2 years certify that it has reviewed
11 and updated the provisions of its building code regarding
12 energy efficiency. Such certification shall include a dem-
13 onstration that such State's code provisions meet or ex-
14 ceed the revised code or standard, or achieve equivalent
15 or greater energy savings.

16 “(B) If the Secretary fails to make a determination
17 under subsection (a)(2)(A)(i) by the date specified in sub-
18 section (a)(2), or makes a negative determination, each
19 State shall within 2 years after the specified date or the
20 date of the determination, certify that it has reviewed the
21 revised code or standard, and updated the provisions of
22 its building code regarding energy efficiency to meet or
23 exceed any provisions found to improve energy efficiency
24 in buildings, or to achieve equivalent or greater energy
25 savings in other ways.

1 “(c) STATE CERTIFICATION OF COMPLIANCE WITH
2 BUILDING CODES.—(1) Each State shall, not later than
3 3 years after a certification under subsection (b), certify
4 that it has achieved compliance with the certified building
5 energy code. Such certification shall include documenta-
6 tion of the rate of compliance based on independent in-
7 spections of a random sample of the new and renovated
8 buildings covered by the code in the preceding year.

9 “(2) A State shall be considered to achieve compli-
10 ance under paragraph (1) if—

11 “(A) at least 90 percent of new and renovated
12 buildings covered by the code in the preceding year
13 substantially meet all the requirements of the code;
14 or

15 “(B) the estimated excess energy use of new
16 and renovated buildings that did not meet the code
17 in the preceding year, compared to a baseline of
18 comparable buildings that meet the code, is not more
19 than 10 percent of the estimated energy use of all
20 new and renovated buildings covered by the code in
21 the preceding year.

22 “(d) FAILURE TO MEET DEADLINES.—(1) The Sec-
23 retary shall permit extensions of the deadlines for the cer-
24 tification requirements under subsections (b) and (c) of
25 this section for up to 1 year if a State can demonstrate

1 that it has made a good faith effort to comply with such
2 requirements and that it has made significant progress in
3 doing so.

4 “(2) Any State for which the Secretary has not ac-
5 cepted a certification by a deadline under subsection (b)
6 or (c) of this section, with any extension granted under
7 paragraph (1), is out of compliance with this section.

8 “(3) In any State that is out of compliance with this
9 section, a local government may be in compliance with this
10 section by meeting the certification requirements under
11 subsections (b) and (c) of this section.

12 “(e) TECHNICAL ASSISTANCE.—(1) The Secretary
13 shall provide technical assistance, including building en-
14 ergy analysis and design tools, building demonstrations,
15 and design assistance and training to enable the national
16 model building energy codes and standards to meet the
17 targets in subsection (a)(1).

18 “(2) The Secretary shall provide technical assistance
19 to States to implement the requirements of this section,
20 including procedures for States to demonstrate that their
21 code provisions achieve equivalent or greater energy sav-
22 ings than the national model codes and standards, and to
23 improve and implement State residential and commercial
24 building energy efficiency codes or to otherwise promote
25 the design and construction of energy efficient buildings.

1 “(f) AVAILABILITY OF INCENTIVE FUNDING.—(1)

2 The Secretary shall provide incentive funding to States to
3 implement the requirements of this section, and to im-
4 prove and implement State residential and commercial
5 building energy efficiency codes, including increasing and
6 verifying compliance with such codes. In determining
7 whether, and in what amount, to provide incentive funding
8 under this subsection, the Secretary shall consider the ac-
9 tions proposed by the State to implement the requirements
10 of this section, to improve and implement residential and
11 commercial building energy efficiency codes, and to pro-
12 mote building energy efficiency through the use of such
13 codes.

14 “(2) Additional funding shall be provided under this
15 subsection for implementation of a plan to achieve and
16 document at least a 90 percent rate of compliance with
17 residential and commercial building energy efficiency
18 codes, based on energy performance—

19 “(A) to a State that has adopted and is imple-
20 menting, on a Statewide basis—

21 “(i) a residential building energy efficiency
22 code that meets or exceeds the requirements of
23 the 2006 IECC, or any succeeding version of
24 that code that has received an affirmative de-

1 termination from the Secretary under sub-
2 section (a)(2)(A)(i); and

3 “(ii) a commercial building energy effi-
4 ciency code that meets or exceeds the require-
5 ments of the ASHRAE Standard 90.1-2004, or
6 any succeeding version of that standard that
7 has received an affirmative determination from
8 the Secretary under subsection (a)(2)(A)(i); or

9 “(B) in a State in which there is no Statewide
10 energy code either for residential buildings or for
11 commercial buildings, or where State codes fail to
12 comply with subparagraph (A), to a local govern-
13 ment that has adopted and is implementing residen-
14 tial and commercial building energy efficiency codes,
15 as described in subparagraph (A).

16 “(3) Of the amounts made available under this sub-
17 section, the Secretary may use amounts required, not ex-
18 ceeding \$500,000 for each State, to train State and local
19 officials to implement codes described in paragraph (2).

20 “(4)(A) There are authorized to be appropriated to
21 carry out this subsection—

22 “(i) \$25,000,000 for each of fiscal years 2008
23 through 2012; and

24 “(ii) such sums as are necessary for fiscal year
25 2013 and each fiscal year thereafter.

1 “(B) Funding provided to States under paragraph
2 (2) for each fiscal year shall not exceed one-half of the
3 excess of funding under this subsection over \$5,000,000
4 for the fiscal year.”.

5 (b) DEFINITION.—Section 303 of the Energy Con-
6 servation and Production Act (42 U.S.C. 6832) is amend-
7 ed by adding at the end the following new paragraph:

8 “(17) The term ‘IECC’ means the International
9 Energy Conservation Code.”.

10 **SEC. 9032. ENERGY CODE IMPROVEMENTS APPLICABLE TO**
11 **MANUFACTURED HOUSING.**

12 (a) IN GENERAL.—Not later than 4 years after the
13 date of enactment of this Act, the Secretary of Energy
14 shall by regulation establish standards for energy effi-
15 ciency in manufactured housing. Such standards shall be
16 established after notice and an opportunity for comment
17 by manufacturers of manufactured housing and other in-
18 terested parties, and after consultation with the Secretary
19 of Housing and Urban Development who may seek further
20 counsel from the Manufactured Housing Consensus Com-
21 mittee.

22 (b) CERTAIN REQUIREMENTS.—The regulations
23 under subsection (a) shall be in accordance with the fol-
24 lowing:

1 (1) The energy conservation standards estab-
2 lished under this subsection shall be based on the
3 most recent version of the International Energy
4 Conservation Code (including supplements) except
5 where the Secretary finds that such code is not cost-
6 effective, or a more stringent standard would be
7 more cost-effective, based on total life-cycle con-
8 struction and operating costs.

9 (2) The energy conservation standards estab-
10 lished under this subsection may—

11 (A) take into consideration the design and
12 factory construction techniques of manufac-
13 tured homes;

14 (B) be based on the climate zones estab-
15 lished by the Department of Housing and
16 Urban Development rather than those under
17 the International Energy Conservation Code;
18 and

19 (C) provide for alternative practices that
20 result in net estimated energy consumption
21 equal to or less than the specified standards.

22 (3) The energy conservation standards estab-
23 lished under this subsection shall be updated within
24 one year after the date of enactment of this Act and

1 within one year after any revision to the Inter-
2 national Energy Conservation Code.

3 (c) ENFORCEMENT.—Any manufacturer of manufac-
4 tured housing that violates a provision of the regulations
5 under subsection (a) is liable to the United States for a
6 civil penalty in an amount not exceeding 1 percent of the
7 manufacturer’s retail list price of the manufactured hous-
8 ing.

9 **SEC. 9033. BASELINE BUILDING DESIGNS.**

10 Section 327(f)(3)(D) of the Energy Policy and Con-
11 servation Act (42 U.S.C. 6297(f)(3)(D)) is amended to
12 read as follows:

13 “(D) If the code uses one or more baseline
14 building designs against which all submitted building
15 designs are to be evaluated and such baseline build-
16 ing designs contain a covered product subject to an
17 energy conservation standard established in or pre-
18 scribed under section 325, the baseline building de-
19 signs are based on the efficiency level for such cov-
20 ered product which—

21 “(i) meets but does not exceed such stand-
22 ard;

23 “(ii) is the efficiency level required by a
24 regulation of that State for which the Secretary

1 has issued a rule granting a waiver under sub-
2 section (d) of this section; or

3 “(iii) is a level that, when evaluated in the
4 baseline building design, the State has found to
5 be feasible and cost-effective.”.

6 **SEC. 9034. REAUTHORIZATION OF WEATHERIZATION AS-**
7 **SISTANCE PROGRAM.**

8 (a) AMENDMENT.—Section 422 of the Energy Con-
9 servation and Production Act (42 U.S.C. 6872) is amend-
10 ed by striking “\$500,000,000 for fiscal year 2006,
11 \$600,000,000 for fiscal year 2007, and \$700,000,000 for
12 fiscal year 2008” and inserting “\$1,200,000,000 for fiscal
13 year 2007, and \$1,400,000,000 for each of fiscal years
14 2008, 2009, 2010, 2011, and 2012. From those sums, the
15 Secretary is authorized to initiate an Alternative Delivery
16 System Pilot Project to examine options for decreasing en-
17 ergy consumption associated with heating and cooling
18 while increasing household participation by focusing on
19 key energy saving components. Alternative Delivery Sys-
20 tem Pilot Projects should be undertaken in both hot and
21 cold urban areas. In implementing the Alternative Deliv-
22 ery System Pilot Project, the Secretary shall consider: (1)
23 the expected effectiveness and benefits of the proposed
24 Pilot Project to low- and moderate-income energy con-
25 sumers; (2) the potential for replication of successful re-

1 sults; (3) the impact on the energy costs of those served;
2 and (4) the extent of partnerships with other public and
3 private entities that contribute to the resources and imple-
4 mentation of the program, including financial partner-
5 ships. Funding for such projects may equal up to two per-
6 cent of funding in any fiscal year, provided that no fund-
7 ing is utilized for such demonstrations in any fiscal year
8 in which Weatherization appropriations are less than
9 \$275,000,000”.

10 (b) SUSTAINABLE ENERGY RESOURCES FOR CON-
11 SUMERS GRANTS.—(1) The Secretary of Energy may
12 make funding available to local Weatherization agencies
13 from amounts authorized under the amendment made by
14 subsection (a) to expand the weatherization assistance
15 program for residential buildings to include materials,
16 benefits, and renewable and domestic energy technologies
17 not currently covered by the program, provided that the
18 State Weatherization grantee has certified that the appli-
19 cant has the capacity to carry out the proposed activities
20 and that the grantee will include the project in its finan-
21 cial oversight of the Weatherization Assistance program.
22 (2) In selecting the grants, the program shall give
23 priority to—

1 (A) the expected effectiveness and benefits of
2 the proposed project to low- and moderate income
3 energy consumers;

4 (B) the potential for replication of successful
5 results;

6 (C) the impact on the health and safety and en-
7 ergy costs of those served; and

8 (D) the extent of partnerships with other public
9 and private entities that contribute to the resources
10 and implementation of the program, including finan-
11 cial partnerships.

12 (3) Funding for such projects may equal up to two
13 percent of funding in any fiscal year, provided that no
14 funding is utilized for Sustainable Energy Resources for
15 Consumers grants in any fiscal year in which Weatheriza-
16 tion appropriations are less than \$275,000,000.

17 **SEC. 9035. RENEWABLE ENERGY REBATE PROGRAM STUDY.**

18 Not later than 120 days after the date of enactment
19 of this Act, the Secretary of Energy shall conduct, and
20 transmit to Congress a report on, a study regarding the
21 rebate program described in section 206(c) of the Energy
22 Policy Act of 2005. The study shall—

23 (1) develop a plan for how such a rebate pro-
24 gram would be carried out if it were funded; and

1 (2) determine the minimum amount of funding
2 the program would need to receive in order to ac-
3 complish the goal of encouraging consumers to in-
4 stall renewable energy systems in their homes or
5 small businesses.

6 **PART 4—COMMERCIAL AND FEDERAL BUILDING**
7 **EFFICIENCY**

8 **SEC. 9041. DEFINITIONS.**

9 In this part:

10 (1) ADMINISTRATOR.—The term “Adminis-
11 trator” means the Administrator of General Serv-
12 ices.

13 (2) ADVISORY COMMITTEE.—The term “Advi-
14 sory Committee” means the Green Building Advi-
15 sory Committee established under section
16 9042(c)(2).

17 (3) COMMERCIAL DIRECTOR.—The term Com-
18 mercial Director means the individual appointed to
19 the position established under section 9043(a).

20 (4) CONSORTIUM.—The term “Consortium”
21 means the High-Performance Green Building Part-
22 nership Consortium created in response to section
23 9042(c)(1) to represent the private sector in a pub-
24 lic-private partnership to promote high-performance

1 green buildings and zero-net-energy commercial
2 buildings.

3 (5) FEDERAL DIRECTOR.—The term “Federal
4 Director” means the individual appointed to the po-
5 sition established under section 9042(a).

6 (6) FEDERAL FACILITY.—The term “Federal
7 facility” means any building that is constructed, ren-
8 ovated, leased, or purchased in part or in whole for
9 use by the Federal Government.

10 (7) HIGH-PERFORMANCE GREEN BUILDING.—
11 The term “high-performance green building” means
12 a building that, during its life-cycle, as compared
13 with similar buildings (as measured by Commercial
14 Buildings Energy Consumption Survey or Residen-
15 tial Energy Consumption Survey data from the En-
16 ergy Information Agency)—

17 (A) reduces energy, water, and material re-
18 source use;

19 (B) improves indoor environmental quality,
20 including reducing indoor pollution, improving
21 thermal comfort, and improving lighting and
22 acoustic environments that affect occupant
23 health and productivity;

24 (C) reduces negative impacts on the envi-
25 ronment throughout the life-cycle of the build-

1 ing, including air and water pollution and waste
2 generation;

3 (D) increases the use of environmentally
4 preferable products, including biobased, recycled
5 content, and nontoxic products with lower life-
6 cycle impacts;

7 (E) increases reuse and recycling opportu-
8 nities;

9 (F) integrates systems in the building;

10 (G) reduces the environmental and energy
11 impacts of transportation through building loca-
12 tion and site design that support a full range
13 of transportation choices for users of the build-
14 ing; and

15 (H) considers indoor and outdoor effects of
16 the building on human health and the environ-
17 ment, including—

18 (i) improvements in worker produc-
19 tivity;

20 (ii) the life-cycle impacts of building
21 materials and operations; and

22 (iii) other factors that the Federal Di-
23 rector or the Commercial Director consider
24 to be appropriate.

1 (8) LIFE-CYCLE.—The term “life-cycle”, with
2 respect to a high-performance green building, means
3 all stages of the useful life of the building (including
4 components, equipment, systems, and controls of the
5 building) beginning at conception of a high-perform-
6 ance green building project and continuing through
7 site selection, design, construction, landscaping,
8 commissioning, operation, maintenance, renovation,
9 deconstruction or demolition, removal, and recycling
10 of the high-performance green building.

11 (9) LIFE-CYCLE ASSESSMENT.—The term “life-
12 cycle assessment” means a comprehensive system
13 approach for measuring the environmental perform-
14 ance of a product or service over the life of the prod-
15 uct or service, beginning at raw materials acquisition
16 and continuing through manufacturing, transpor-
17 tation, installation, use, reuse, and end-of-life waste
18 management.

19 (10) LIFE-CYCLE COSTING.—The term “life-
20 cycle costing”, with respect to a high-performance
21 green building, means a technique of economic eval-
22 uation that—

23 (A) sums, over a given study period, the
24 costs of initial investment (less resale value), re-
25 placements, operations (including energy use),

1 and maintenance and repair of an investment
2 decision; and

3 (B) is expressed—

4 (i) in present value terms, in the case
5 of a study period equivalent to the longest
6 useful life of the building, determined by
7 taking into consideration the typical life of
8 such a building in the area in which the
9 building is to be located; or

10 (ii) in annual value terms, in the case
11 of any other study period.

12 (11) OFFICE OF COMMERCIAL HIGH-PERFORM-
13 ANCE GREEN BUILDINGS.—The term “Office of
14 Commercial High-Performance Green Buildings” re-
15 fers to the office established under section 9043(a).

16 (12) OFFICE OF FEDERAL HIGH-PERFORMANCE
17 GREEN BUILDINGS.—The term “Office of Federal
18 High-Performance Green Buildings” refers to the
19 Office established under section 9042(a).

20 (13) PRACTICES.—The term “practices” means
21 design, financing, permitting, construction, commis-
22 sioning, operation and maintenance, and other prac-
23 tices that contribute to achieving zero-net-energy
24 buildings or facilities.

1 (14) SECRETARY.—The term “Secretary”
2 means the Secretary of Energy.

3 (15) ZERO-NET-ENERGY COMMERCIAL BUILD-
4 ING.—The term “zero-net-energy commercial build-
5 ing” means a commercial building that is designed,
6 constructed, and operated to—

7 (A) require a greatly reduced quantity of
8 energy to operate;

9 (B) meet the balance of energy needs from
10 sources of energy that do not produce green-
11 house gases;

12 (C) therefore result in no net emissions of
13 greenhouse gases; and

14 (D) be economically viable.

15 **SEC. 9042. HIGH-PERFORMANCE GREEN FEDERAL BUILD-**
16 **INGS.**

17 (a) ESTABLISHMENT OF OFFICE.—Not later than 60
18 days after the date of enactment of this Act, the Adminis-
19 trator shall establish within the General Services Adminis-
20 tration an Office of Federal High-Performance Green
21 Buildings, and appoint an individual to serve as Federal
22 Director in, a position in the career-reserved Senior Exec-
23 utive service, to—

24 (1) establish and manage the Office of Com-
25 mercial High-Performance Green Buildings; and

1 (2) carry out other duties as required under
2 this part.

3 (b) COMPENSATION.—The compensation of the Fed-
4 eral Director shall not exceed the maximum rate of basic
5 pay for the Senior Executive Service under section 5382
6 of title 5, United States Code, including any applicable
7 locality-based comparability payment that may be author-
8 ized under section 5304(h)(2)(C) of that title.

9 (c) DUTIES.—The Federal Director shall—

10 (1) coordinate the activities of the Office of
11 Federal High-Performance Green Buildings with the
12 activities of the Office of Commercial High-Perform-
13 ance Green Buildings;

14 (2) ensure full coordination of high-performance
15 green building information and activities within the
16 General Services Administration and all relevant
17 agencies, including, at a minimum—

18 (A) the Environmental Protection Agency;

19 (B) the Office of the Federal Environ-
20 mental Executive;

21 (C) the Office of Federal Procurement Pol-
22 icy;

23 (D) the Department of Energy;

24 (E) the Department of Health and Human
25 Services; and

1 (F) the Department of Defense;

2 (3) establish a senior-level Federal Green Build-
3 ing Advisory Committee, which shall provide advice
4 and recommendations in accordance with subsection
5 (d);

6 (4) identify and biennially reassess improved or
7 higher rating standards recommended by the Advi-
8 sory Committee;

9 (5) ensure full coordination of research and de-
10 velopment information relating to Federal high-per-
11 formance green building initiatives;

12 (6) identify and develop Federal high-perform-
13 ance green building standards that could be used for
14 all types of Federal facilities;

15 (7) establish green practices that can be used
16 throughout the life of a Federal facility; and

17 (8) review and analyze current Federal budget
18 practices and life-cycle costing issues, and make rec-
19 ommendations to Congress, in accordance with sub-
20 section (d).

21 (d) ADDITIONAL DUTIES.—The Federal Director, in
22 coordination with the Commercial Director and the Advi-
23 sory Committee, shall—

24 (1) identify, review, and analyze current budget
25 and contracting practices that affect achievement of

1 high-performance green buildings, including the
2 identification of barriers to high-performance green
3 building life-cycle costing and budgetary issues;

4 (2) develop guidance and conduct training ses-
5 sions with budget specialists and contracting per-
6 sonnel from Federal agencies and budget examiners
7 to apply life-cycle cost criteria to actual projects;

8 (3) identify tools to aid life-cycle cost decision-
9 making; and

10 (4) explore the feasibility of incorporating the
11 benefits of high-performance green buildings, such
12 as security benefits, into a cost-budget analysis to
13 aid in life-cycle costing for budget and decision-
14 making processes.

15 (e) INCENTIVES.—As soon as practicable after the
16 date of enactment of this Act, the Federal Director shall
17 identify incentives to encourage the use of high-perform-
18 ance green buildings and related technology in the oper-
19 ations of the Federal Government, including through—

20 (1) the provision of recognition awards; and

21 (2) the maximum feasible retention of financial
22 savings in the annual budgets of Federal agencies
23 for use in reinvesting in future high-performance
24 green building initiatives.

1 (f) REPORT.—Not later than 2 years after the date
2 of enactment of this Act, and biennially thereafter, the
3 Federal Director shall submit to Congress a report that—

4 (1) describes the status of the Federal high-per-
5 formance green building initiatives in effect as of the
6 date of the report, including—

7 (A) the extent to which the programs are
8 being carried out in accordance with this part;
9 and

10 (B) the status of funding requests and ap-
11 propriations for those programs;

12 (2) identifies within the planning, budgeting,
13 and construction process all types of Federal facility
14 procedures that inhibit new and existing Federal fa-
15 cilities from becoming high-performance green build-
16 ings;

17 (3) identifies inconsistencies, as reported to the
18 Advisory Committee, in Federal law with respect to
19 product acquisition guidelines and high-performance
20 product guidelines;

21 (4) recommends language for uniform stand-
22 ards for use by Federal agencies in environmentally
23 responsible acquisition;

1 (5) in coordination with the Office of Manage-
2 ment and Budget, reviews the budget process for
3 capital programs with respect to alternatives for—

4 (A) restructuring of budgets to require the
5 use of complete energy and environmental cost
6 accounting;

7 (B) using operations expenditures in budg-
8 et-related decisions while simultaneously incor-
9 porating productivity and health measures (as
10 those measures can be quantified by the Office
11 of Federal High-Performance Green Buildings,
12 with the assistance of universities and national
13 laboratories);

14 (C) permitting Federal agencies to retain
15 all identified savings accrued as a result of the
16 use of life-cycle costing for future high-perform-
17 ance green building initiatives; and

18 (D) identifying short-term and long-term
19 cost savings that accrue from high-performance
20 green buildings, including those relating to
21 health and productivity;

22 (6) identifies green, self-sustaining technologies
23 to address the operational needs of Federal facilities
24 in times of national security emergencies, natural
25 disasters, or other dire emergencies;

1 (7) summarizes and highlights development, at
2 the State and local level, of high-performance green
3 building initiatives, including executive orders, poli-
4 cies, or laws adopted promoting high-performance
5 green building (including the status of implementa-
6 tion of those initiatives); and

7 (8) includes, for the 2-year period covered by
8 the report, recommendations to address each of the
9 matters, and a plan for implementation of each rec-
10 ommendation, described in paragraphs (1) through
11 (7).

12 (g) IMPLEMENTATION.—The Office of Federal High-
13 Performance Green Buildings shall carry out each plan
14 for implementation of recommendations under subsection
15 (f)(8).

16 **SEC. 9043. COMMERCIAL HIGH-PERFORMANCE GREEN**
17 **BUILDINGS.**

18 (a) ESTABLISHMENT OF OFFICE.—Not later than 60
19 days after the date of enactment of this Act, the Secretary
20 shall establish within the Department of Energy, Office
21 of Energy Efficiency and Renewable Energy, an Office of
22 Commercial High-Performance Green Buildings, and ap-
23 point an individual to serve as Commercial Director in,
24 a position in the career-reserved Senior Executive service,
25 to—

1 (1) establish and manage the Office of Com-
2 mercial High-Performance Green Buildings; and

3 (2) carry out other duties as required under
4 this part.

5 (b) COMPENSATION.—The compensation of the Com-
6 mercial Director shall not exceed the maximum rate of
7 basic pay for the Senior Executive Service under section
8 5382 of title 5, United States Code, including any applica-
9 ble locality-based comparability payment that may be au-
10 thorized under section 5304(h)(2)(C) of that title.

11 (c) DUTIES.—The Commercial Director shall, with
12 respect to development of high-performance green build-
13 ings and zero-energy commercial buildings nationwide—

14 (1) coordinate the activities of the Office of
15 Commercial High-Performance Green Buildings with
16 the activities of the Office of Federal High-Perform-
17 ance Green Buildings;

18 (2) develop the legal predicates and agreements
19 for, negotiate, and establish one or more public-pri-
20 vate partnerships with the Consortium, members of
21 the Consortium, and other capable parties meeting
22 the qualifications of the Consortium, to further such
23 development;

1 (3) represent the public and the Department of
2 Energy in negotiating and performing in accord with
3 such public-private partnerships;

4 (4) use appropriated funds in an effective man-
5 ner to encourage the maximum investment of private
6 funds to achieve such development; and

7 (5) establish a national high-performance green
8 building clearinghouse in accordance with section
9 9045(1), which shall provide high-performance green
10 building information through—

11 (A) outreach;

12 (B) education; and

13 (C) the provision of technical assistance.

14 (d) REPORTING.—The Commercial Director shall re-
15 port directly to the Assistant Secretary for Energy Effi-
16 ciency and Renewable Energy, or to other senior officials
17 in a way that facilitates the integrated program of this
18 part for both energy efficiency and renewable energy and
19 both technology development and technology deployment.

20 (e) COORDINATION.—The Commercial Director shall
21 ensure full coordination of high-performance green build-
22 ing information and activities, including activities under
23 this part, within the Federal Government by working with
24 the General Services Administration and all relevant agen-
25 cies, including, at a minimum—

- 1 (1) the Environmental Protection Agency;
- 2 (2) the Office of the Federal Environmental
- 3 Executive;
- 4 (3) the Office of Federal Procurement Policy;
- 5 (4) the Department of Energy, particularly the
- 6 Federal Energy Management Program;
- 7 (5) the Department of Health and Human
- 8 Services;
- 9 (6) the Department of Housing and Urban De-
- 10 velopment;
- 11 (7) the Department of Defense; and
- 12 (8) such nonprofit high-performance green
- 13 building rating and analysis entities as the Commer-
- 14 cial Director determines can offer support, expertise,
- 15 and review services.

16 (f) HIGH-PERFORMANCE GREEN BUILDING PART-
17 NERSHIP CONSORTIUM.—

18 (1) RECOGNITION.—Not later than 90 days
19 after the date of enactment of this Act, the Commer-
20 cial Director shall formally recognize one or more
21 groups that qualify as a high-performance green
22 building partnership consortium.

23 (2) REPRESENTATION TO QUALIFY.—To qualify
24 under this section, any consortium shall include rep-
25 resentation from—

1 (A) the design professions, including na-
2 tional associations of architects and of profes-
3 sional engineers;

4 (B) the development, construction, finan-
5 cial, and real estate industries;

6 (C) building owners and operators from
7 the public and private sectors;

8 (D) academic and research organizations,
9 including at least one national laboratory with
10 extensive commercial building energy expertise;

11 (E) building code agencies and organiza-
12 tions, including a model energy code-setting or-
13 ganization;

14 (F) independent high-performance green
15 building associations or councils;

16 (G) experts in indoor air quality and envi-
17 ronmental factors;

18 (H) experts in intelligent buildings and in-
19 tegrated building information systems;

20 (I) utility energy efficiency programs; and

21 (J) nongovernmental energy efficiency or-
22 ganizations.

23 (3) FUNDING.—The Secretary may make pay-
24 ments to the Consortium pursuant to the terms of
25 a public-private partnership for such activities of the

1 Consortium undertaken under such a partnership as
2 described in this part directly to the Consortium or
3 through one or more of its members.

4 (g) REPORT.—Not later than 2 years after the date
5 of enactment of this Act, and biennially thereafter, the
6 Commercial Director, in consultation with the Consor-
7 tium, shall submit to Congress a report that—

8 (1) describes the status of the high-performance
9 green building initiatives under this part and other
10 Federal programs affecting commercial high-per-
11 formance green buildings in effect as of the date of
12 the report, including—

13 (A) the extent to which the programs are
14 being carried out in accordance with this part;
15 and

16 (B) the status of funding requests and ap-
17 propriations for those programs; and

18 (2) summarizes and highlights development, at
19 the State and local level, of high-performance green
20 building initiatives, including executive orders, poli-
21 cies, or laws adopted promoting high-performance
22 green building (including the status of implementa-
23 tion of those initiatives).

1 **SEC. 9044. ZERO-ENERGY COMMERCIAL BUILDINGS INITIA-**
2 **TIVE.**

3 (a) GOAL.—The Commercial Director, in partnership
4 with the Consortium, shall periodically study and refine
5 a national goal to reduce commercial building energy use
6 and achieve zero-net-energy commercial buildings. Unless
7 the Commercial Director concludes that such targets are
8 unachievable or unrealistic, the goal shall include objec-
9 tives that—

10 (1) all new commercial buildings constructed
11 after the beginning of 2025 are zero-net-energy com-
12 mercial buildings;

13 (2) by 2035, 50 percent of the then existing
14 stock of commercial buildings that were constructed
15 before 2025 are zero-net-energy commercial build-
16 ings; and

17 (3) by 2050, all commercial buildings are zero-
18 net-energy commercial buildings.

19 (b) STRATEGY.—The Commercial Director, in part-
20 nership with the Consortium, shall develop a market
21 transformation strategy intended to achieve the adopted
22 goal by significantly accelerating the development and
23 widespread deployment of energy efficiency technologies,
24 practices, and policies in both new and existing commer-
25 cial buildings, and by leveraging State, utility, and private
26 sector commercial building energy efficiency programs.

1 (c) INITIATIVE.—The Commercial Director, in part-
2 nership with the Consortium, shall implement an initiative
3 to carry out the strategy that may include—

4 (1) support for industry efforts to develop ad-
5 vanced materials, equipment, controls, practices, and
6 integrated building systems aimed at achieving zero-
7 net-energy commercial buildings and monitoring and
8 benchmarking commercial building energy use;

9 (2) training, education, and awareness pro-
10 grams, including—

11 (A) programs in cooperation with industry
12 and professional associations and educational
13 institutions to provide education on achieving
14 sustainable and energy-efficient performance
15 through proper system and structure design,
16 construction, and operation to—

17 (i) architects;

18 (ii) mechanical, electrical, and plumb-
19 ing engineers;

20 (iii) contractors; and

21 (iv) construction managers and facil-
22 ity managers;

23 (B) programs to incorporate energy effi-
24 ciency and sustainability elements into architec-
25 ture, engineering, and vocational training and

1 certification curricula, including professional
2 certification and continuing education pro-
3 grams; and

4 (C) regional and national public education
5 campaigns to educate real estate, finance, and
6 other commercial buildings professionals and
7 the general public about the opportunities for
8 energy and cost savings and associated environ-
9 mental and health benefits associated with
10 high-performance green buildings;

11 (3) pilot projects to demonstrate and document
12 the performance of scalable and replicable tech-
13 nologies, practices, and policies to achieve high-per-
14 formance green buildings and zero-net-energy com-
15 mercial buildings, including—

16 (A) pilot projects representing each market
17 segment or building type in each climate region
18 that include current best practice in integrated
19 design, technology and systems, construction,
20 commissioning, operation, and building infor-
21 mation management;

22 (B) pilot projects, in cooperation with
23 State and local governments, in public build-
24 ings; and

1 (C) pilot projects, in cooperation with pub-
2 lic school districts and colleges and universities,
3 to—

4 (i) demonstrate such technologies and
5 practices in new and existing facilities;

6 (ii) involve students and faculty mem-
7 bers in integrating energy efficiency and
8 high-performance green building concepts
9 and measures within the educational cur-
10 riculum; and

11 (iii) use education facilities as show-
12 cases to communicate these concepts to the
13 community;

14 (4) technical assistance and funding of pilot
15 projects for the development and use of new building
16 energy design standards, model designs, model en-
17 ergy codes, and incentives and other policies, to be
18 provided to designers, builders, developers, commer-
19 cial building owners, and utility and government en-
20 ergy efficiency programs, including—

21 (A) support for code and standards organi-
22 zations to develop aggressive model energy
23 codes, beyond-code guidelines, and code compli-
24 ance programs for new and existing buildings;

1 (B) assistance to utilities, builders, and
2 State and local officials in developing, imple-
3 menting, and evaluating pilot programs to
4 achieve building design and actual energy per-
5 formance that meet and exceed performance
6 levels in the model energy codes; and

7 (C) support for development and dissemi-
8 nation of model programs and policies that pro-
9 vide incentives for high-performance green
10 buildings, such as accelerated zoning and con-
11 struction permitting and inspections, density
12 bonuses, and State and local tax incentives;

13 (5) technical assistance and funding of pilot
14 projects for innovative market-based initiatives to
15 advance energy-efficient technologies and practices
16 in new and existing commercial buildings, provided
17 to State agencies, utilities, and other entities, includ-
18 ing—

19 (A) design assistance and incentives for in-
20 corporating sustainability and energy efficiency
21 beginning with the first stages of building de-
22 sign and continuing through start-up commis-
23 sioning and long-term operation;

1 (B) performance-based design and con-
2 struction fees for high-performance green con-
3 struction and renovation;

4 (C) equipment leasing and financing strat-
5 egies for energy efficiency upgrades of new and
6 replacement commercial building equipment;

7 (D) trade-in programs for early retirement
8 of low-efficiency commercial building equipment
9 and system components, such as motors, air
10 conditioners, boilers, lighting, and windows;

11 (E) improved methods of energy perform-
12 ance contracting to reduce transaction costs
13 and encourage the use of third-party funding
14 and expertise for energy-efficient retrofitting of
15 existing commercial buildings;

16 (F) improved model protocols for commer-
17 cial building energy audits, energy performance
18 measurement and verification, continuous com-
19 missioning, and ongoing performance moni-
20 toring and diagnostics; and

21 (G) strategies to reduce barriers to energy
22 efficiency investment by addressing split incen-
23 tives between commercial building owners and
24 tenants;

1 (6) development, dissemination, technical assist-
2 ance, and pilot project activities to improve the prac-
3 tice of monitoring, benchmarking, and disclosure of
4 actual commercial building energy performance and
5 operating costs, including—

6 (A) improved methods of measuring and
7 compiling energy performance data on a statis-
8 tically significant share of commercial new con-
9 struction, renovation, and energy retrofit
10 projects;

11 (B) development and dissemination of en-
12 ergy performance metrics for the commercial
13 building stock and for important subcategories
14 of commercial buildings;

15 (C) improved methods of providing energy
16 performance feedback to commercial building
17 owners, operators, and occupants, including
18 real-time feedback and comparisons to perform-
19 ance goals, past performance, and similar build-
20 ings;

21 (D) voluntary programs at the national, re-
22 gional, and sectoral levels to recognize and re-
23 ward commercial buildings with exceptional per-
24 formance or performance improvement;

1 (E) increased availability and use of tools
2 for post occupancy assessment of energy effi-
3 ciency and occupant satisfaction with commer-
4 cial high-performance green buildings, and for
5 measuring and documenting non-energy finan-
6 cial and other benefits of such buildings;

7 (7) in cooperation with the Energy Information
8 Administration and with utility, State, and private
9 sector organizations, development and application of
10 improved methods for assessing trends in the energy
11 performance of the commercial buildings stock, new
12 construction, and building renovations, by building
13 type and region, in order to track progress toward
14 the goals adopted under subsection (a); and

15 (8) such otherwise authorized activities that the
16 Secretary and the Commercial Director determine
17 are necessary to the success of the initiative.

18 **SEC. 9045. PUBLIC OUTREACH.**

19 The Commercial Director, in coordination with the
20 Consortium, shall carry out public outreach to inform indi-
21 viduals and entities of the information and services avail-
22 able Governmentwide by—

23 (1) establishing and maintaining a national
24 high-performance green building clearinghouse, in-
25 cluding on the internet, that—

1 (A) identifies existing similar efforts and
2 coordinates activities of common interest; and

3 (B) provides information relating to high-
4 performance green buildings, including
5 hyperlinks to internet sites that describe the ac-
6 tivities, information, and resources of—

7 (i) the Federal Government;

8 (ii) State and local governments;

9 (iii) the private sector (including non-
10 governmental and nonprofit entities and
11 organizations); and

12 (iv) international organizations;

13 (2) identifying and recommending educational
14 resources for implementing high-performance green
15 building practices, including security and emergency
16 benefits and practices;

17 (3) providing access to technical assistance on
18 using tools and resources to make more cost-effec-
19 tive, energy-efficient, health-protective, and environ-
20 mentally beneficial decisions for constructing high-
21 performance green buildings, particularly tools avail-
22 able to conduct life-cycle costing and life-cycle as-
23 sessment;

1 (4) providing information on application proc-
2 esses for certifying a high-performance green build-
3 ing, including certification and commissioning;

4 (5) providing technical information, market re-
5 search, or other forms of assistance or advice that
6 would be useful in planning and constructing high-
7 performance green buildings;

8 (6) using such other methods as are determined
9 by the Commercial Director to be appropriate;

10 (7) surveying existing research and studies re-
11 lating to high-performance green buildings;

12 (8) coordinating activities of common interest;

13 (9) developing and recommending a high-per-
14 formance green building practices that—

15 (A) identify information and research
16 needs, including the relationships between
17 health, occupant productivity, and each of—

18 (i) pollutant emissions from materials
19 and products in the building;

20 (ii) natural day lighting;

21 (iii) ventilation choices and tech-
22 nologies;

23 (iv) heating, cooling, and system con-
24 trol choices and technologies;

25 (v) moisture control and mold;

1 (vi) maintenance, cleaning, and pest
2 control activities;

3 (vii) acoustics; and

4 (viii) other issues relating to the
5 health, comfort, productivity, and perform-
6 ance of occupants of the building; and

7 (B) promote the development and dissemi-
8 nation of high-performance green building
9 measurement tools that, at a minimum, may be
10 used—

11 (i) to monitor and assess the life-cycle
12 performance of facilities (including dem-
13 onstration projects) built as high-perform-
14 ance green buildings; and

15 (ii) to perform life-cycle assessments;

16 (10) studying and identifying potential benefits
17 of high-performance green buildings relating to secu-
18 rity, natural disaster, and emergency needs of the
19 Federal Government; and

20 (11) supporting other research initiatives deter-
21 mined by the Office of Commercial High-Perform-
22 ance Green Buildings.

23 **SEC. 9046. FEDERAL PROCUREMENT.**

24 (a) IN GENERAL.—Not later than 2 years after the
25 date of enactment of this Act, the Director of the Office

1 of Federal Procurement Policy, in consultation with the
2 Federal Director, the Commercial Director, and the Under
3 Secretary of Defense for Acquisition, Technology, and Lo-
4 gistics, shall promulgate revisions of the applicable acqui-
5 sition regulations, to take effect as of the date of promul-
6 gation of the revisions—

7 (1) to direct any Federal procurement execu-
8 tives involved in the acquisition, construction, or
9 major renovation (including contracting for the con-
10 struction or major renovation) of any facility—

11 (A) to employ integrated design principles;

12 (B) to improve site selection for environ-
13 mental and community benefits;

14 (C) to optimize building and systems en-
15 ergy performance;

16 (D) to protect and conserve water;

17 (E) to enhance indoor environmental qual-
18 ity; and

19 (F) to reduce environmental impacts of
20 materials and waste flows; and

21 (2) to direct Federal procurement executives in-
22 volved in leasing buildings, to give preference to the
23 lease of facilities that—

24 (A) are energy-efficient; and

1 (B) to the maximum extent practicable,
2 have applied contemporary high-performance
3 and sustainable design principles during con-
4 struction or renovation.

5 (b) GUIDANCE.—Not later than 90 days after the
6 date of promulgation of the revised regulations under sub-
7 section (a), the Director of the Office of Procurement Pol-
8 icy shall issue guidance to all Federal procurement execu-
9 tives providing direction and instructions to renegotiate
10 the design of proposed facilities, renovations for existing
11 facilities, and leased facilities to incorporate improvements
12 that are consistent with this section.

13 **SEC. 9047. MANAGEMENT OF ENERGY AND WATER EFFI-**
14 **CIENCY IN FEDERAL BUILDINGS.**

15 Section 543 of the National Energy Conservation
16 Policy Act (42 U.S.C. 8253) is amended by adding at the
17 end the following:

18 “(f) USE OF ENERGY AND WATER EFFICIENCY
19 MEASURES IN FEDERAL BUILDINGS.—

20 “(1) FACILITY ENERGY MANAGERS.—

21 “(A) IN GENERAL.—Each Federal agency
22 shall designate a manager responsible for imple-
23 menting this subsection and reducing energy
24 use at each building or facility that meets cri-
25 teria under subparagraph (B).

1 “(B) COVERED FACILITIES.—The Sec-
2 retary shall develop criteria, after consultation
3 with affected agencies, energy efficiency advo-
4 cates, and energy and utility service providers,
5 that cover, at a minimum, each Federal build-
6 ing or facility with greater than 40,000 square
7 feet of space or greater than \$75,000 per year
8 in energy costs, including central utility plants
9 and distribution systems and other energy in-
10 tensive operations, and that constitute in the
11 aggregate at least two-thirds of total Federal
12 building and facility energy use.

13 “(2) ENERGY AND WATER EVALUATIONS AND
14 COMMISSIONING.—

15 “(A) EVALUATIONS.—Not later than 18
16 months after the date of enactment of this sub-
17 section, and every 5 years thereafter, each en-
18 ergy manager shall complete a comprehensive
19 energy and water evaluation for each building
20 or facility that meets criteria under paragraph
21 (1)(B).

22 “(B) RECOMMISSIONING AND
23 RETROCOMMISSIONING.—As part of the evalua-
24 tion under subparagraph (A) or on the same
25 schedule the energy manager shall recommis-

1 sion or retrocommission each such building and
2 facility as applicable.

3 “(3) IMPLEMENTATION OF IDENTIFIED ENERGY
4 AND WATER EFFICIENCY MEASURES.—

5 “(A) IN GENERAL.—Not later than 2 years
6 after the completion of each evaluation under
7 paragraph (1), each energy manager—

8 “(i) shall fully implement each energy
9 and water-saving measure identified in the
10 evaluation conducted under paragraph (2)
11 that is life-cycle cost-effective and has a
12 12-year or shorter simple payback period;

13 “(ii) may implement any energy or
14 water-saving measure that the Federal
15 agency identified in the evaluation con-
16 ducted under paragraph (1) that is life-
17 cycle cost-effective and has longer than a
18 12-year simple payback period; and

19 “(iii) may bundle individual measures
20 of varying paybacks together into combined
21 projects.

22 “(B) PAYBACK PERIOD.—For the purpose
23 of subparagraph (A), the simple payback period
24 of a measure shall be obtained by dividing—

1 “(i) the estimated initial implementa-
2 tion cost of the measure (other than fi-
3 nancing costs); by

4 “(ii) the annual cost savings from the
5 measure.

6 “(C) COST SAVINGS.—For the purpose of
7 subparagraph (B), cost savings shall include net
8 savings in estimated—

9 “(i) energy and water costs; and

10 “(ii) operations, maintenance, repair,
11 replacement, and other direct costs.

12 “(D) EXCEPTIONS.—The Secretary may
13 modify or make exceptions to the calculation of
14 a 12-year simple payback under this paragraph
15 in the guidelines issued by the Secretary under
16 paragraph (5), if necessary and appropriate to
17 achieve the purposes of this Act.

18 “(E) LIFE-CYCLE COST-EFFECTIVE.—For
19 the purpose of subparagraph (A), determination
20 of whether a measure is life-cycle cost-effective
21 shall use methods and procedures developed
22 pursuant to section 544.

23 “(4) FOLLOW-UP ON IMPLEMENTED MEAS-
24 URES.—For each measure implemented under para-
25 graph (3), each energy manager shall ensure that—

1 “(A) equipment, including building and
2 equipment controls, is fully commissioned at ac-
3 ceptance to be operating at design specifica-
4 tions;

5 “(B) a plan for appropriate operations,
6 maintenance, and repair of the equipment is in
7 place at acceptance and is followed;

8 “(C) equipment and system performance is
9 measured during its entire life to ensure proper
10 operations, maintenance, and repair; and

11 “(D) energy and water savings are meas-
12 ured and verified.

13 “(5) GUIDELINES.—

14 “(A) IN GENERAL.—The Secretary shall
15 issue guidelines and necessary criteria that each
16 Federal agency shall follow for implementation
17 of—

18 “(i) paragraphs (1) and (2) not later
19 than 180 days after the date of enactment
20 of this subsection; and

21 “(ii) paragraphs (3) and (4) not later
22 than 1 year after the date of enactment of
23 this subsection.

24 “(B) RELATIONSHIP TO FUNDING
25 SOURCE.—The guidelines issued by the Sec-

1 retary under subparagraph (A) shall be appro-
2 priate and uniform for measures funded with
3 each type of funding made available under
4 paragraph (9), but may distinguish between dif-
5 ferent types of measures project size, and other
6 criteria the Secretary determines are relevant.

7 “(6) WEB-BASED CERTIFICATION.—

8 “(A) IN GENERAL.—For each building or
9 facility that meets the criteria established by
10 the Secretary under paragraph (1), the energy
11 manager shall use the web-based tracking sys-
12 tem under subparagraph (B) to certify compli-
13 ance with the requirements for—

14 “(i) energy and water evaluations and
15 recommissioning and retrocommissioning
16 under paragraph (2);

17 “(ii) implementation of identified en-
18 ergy and water measures under paragraph
19 (3); and

20 “(iii) follow-up on implemented meas-
21 ures under paragraph (4).

22 “(B) DEPLOYMENT.—

23 “(i) IN GENERAL.—Not later than 1
24 year after the date of enactment of this
25 subsection, the Secretary shall develop and

1 deploy the web-based tracking system re-
2 quired under this paragraph in a manner
3 that tracks, at a minimum—

4 “(I) the covered buildings and fa-
5 cilities;

6 “(II) the status of meeting the
7 requirements specified in subpara-
8 graph (A);

9 “(III) the estimated cost and
10 savings for measures required to be
11 implemented in a building or facility;
12 and

13 “(IV) the measured savings and
14 persistence of savings for implemented
15 measures.

16 “(ii) EASE OF COMPLIANCE.—The
17 Secretary shall ensure that energy man-
18 ager compliance with the requirements in
19 this paragraph, to the greatest extent prac-
20 ticable, can be accomplished with the use
21 of streamlined procedures, and templates
22 that minimize the time demands on Fed-
23 eral employees.

24 “(C) AVAILABILITY.—

1 “(i) IN GENERAL.—Subject to clause
2 (ii), the Secretary shall make the web-
3 based tracking system required under this
4 paragraph available to Congress, other
5 Federal agencies, and the public through
6 the Internet.

7 “(ii) EXEMPTIONS.—At the request of
8 a Federal agency, the Secretary may ex-
9 empt specific data for specific buildings
10 from disclosure under clause (i) for na-
11 tional security purposes.

12 “(7) BENCHMARKING OF FEDERAL FACILI-
13 TIES.—

14 “(A) IN GENERAL.—The energy manager
15 shall enter energy use data for each building or
16 facility that meets the criteria established by
17 the Secretary under paragraph (1) into a build-
18 ing energy use benchmarking system, such as
19 the Energy Star Portfolio Manager.

20 “(B) SYSTEM AND GUIDANCE.—Not later
21 than 1 year after the date of enactment of this
22 subsection, the Secretary shall—

23 “(i) select or develop the building en-
24 ergy use benchmarking system required

1 under this paragraph for each type of
2 building; and

3 “(ii) issue guidance for use of the sys-
4 tem.

5 “(C) PUBLIC DISCLOSURE.—Each Federal
6 agency shall post the benchmarking information
7 generated under this subsection, along with
8 each building’s annual energy use per square
9 foot and energy costs, on the agency’s website.
10 The agency shall update such information each
11 year, and shall include in such reporting pre-
12 vious years’ information to allow changes in
13 building performance to be tracked over time.

14 “(8) FEDERAL AGENCY SCORECARDS.—

15 “(A) IN GENERAL.—The Director of the
16 Office of Management and Budget shall issue
17 semiannual scorecards for energy management
18 activities carried out by each Federal agency
19 that includes—

20 “(i) summaries of the status of imple-
21 menting the various requirements of the
22 agency and its energy managers under this
23 subsection; and

1 “(ii) any other means of measuring
2 performance that the Director considers
3 appropriate.

4 “(B) AVAILABILITY.—The Director shall
5 make the scorecards required under this para-
6 graph available to Congress, other Federal
7 agencies, and the public through the Internet.

8 “(9) FUNDING AND IMPLEMENTATION.—

9 “(A) AUTHORIZATION OF APPROPRIA-
10 TIONS.—There are authorized to be appro-
11 priated such sums as are necessary to carry out
12 this subsection.

13 “(B) FUNDING OPTIONS.—

14 “(i) IN GENERAL.—To carry out this
15 subsection, a Federal agency may use any
16 combination of—

17 “(I) appropriated funds made
18 available under subparagraph (A);
19 and

20 “(II) private financing, including
21 financing available through energy
22 savings performance contracts or util-
23 ity energy service contracts.

24 “(ii) COMBINED FUNDING FOR SAME
25 MEASURE.—A Federal agency may use any

1 combination of appropriated funds and pri-
2 vate financing described in clause (i) to
3 carry out the same measure under this
4 subsection, with proportional allocation for
5 any energy and water savings.

6 “(iii) LACK OF APPROPRIATED
7 FUNDS.—Since measures may be carried
8 out using private financing described in
9 clause (i), a lack of available appropria-
10 tions shall not be considered a sufficient
11 reason for the failure of a Federal agency
12 to comply with this subsection.

13 “(C) IMPLEMENTATION.—Each Federal
14 agency may implement the requirements under
15 this subsection itself or may contract out per-
16 formance of some or all of the requirements.

17 “(10) RULE OF CONSTRUCTION.—This sub-
18 section shall not be construed either to require or to
19 obviate any contractor savings guarantees.”.

20 **SEC. 9048. DEMONSTRATION PROJECT.**

21 (a) IN GENERAL.—The Federal Director and the
22 Commercial Director shall establish guidelines to imple-
23 ment a demonstration project to contribute to the research
24 goals of the Office of Commercial High-Performance

1 Green Buildings and the Office of Federal High-Perform-
2 ance Green Buildings.

3 (b) PROJECTS.—In accordance with guidelines estab-
4 lished by the Federal Director and the Commercial Direc-
5 tor under subsection (a) and the duties of the Federal Di-
6 rector and the Commercial Director described in this part,
7 the Federal Director or the Commercial Director shall
8 carry out—

9 (1) for each of fiscal years 2009 through 2014,
10 1 demonstration project in a Federal building se-
11 lected by the Federal Director in accordance with
12 relevant agencies and described in subsection (c)(1),
13 that—

14 (A) provides for the evaluation of the in-
15 formation obtained through the conduct of
16 projects and activities under this part; and

17 (B) achieves the highest rating offered by
18 an existing high-performance green building
19 rating system that is developed through a con-
20 sensus-based process, provides minimum re-
21 quirements in all performance categories, re-
22 quires substantiating documentation and
23 verifiable calculations, employs third-party post-
24 construction review and verification, and is na-
25 tionally recognized within the building industry;

1 (2) no fewer than 4 demonstration projects at
2 4 universities, that, as competitively selected by the
3 Commercial Director in accordance with subsection
4 (c)(2), have—

5 (A) appropriate research resources and rel-
6 evant projects to meet the goals of the dem-
7 onstration project established by the Office of
8 Commercial High-Performance Green Build-
9 ings; and

10 (B) the ability—

11 (i) to serve as a model for high-per-
12 formance green building initiatives, includ-
13 ing research and education;

14 (ii) to identify the most effective ways
15 to use high-performance green building and
16 landscape technologies to engage and edu-
17 cate undergraduate and graduate students;

18 (iii) to effectively implement a high-
19 performance green building education pro-
20 gram for students and occupants;

21 (iv) to demonstrate the effectiveness
22 of various high-performance technologies in
23 each of the 4 climatic regions of the
24 United States described in subsection
25 (c)(2)(B); and

1 (v) to explore quantifiable and non-
2 quantifiable beneficial impacts on public
3 health and employee and student perform-
4 ance;

5 (3) demonstration projects to evaluate
6 replicable approaches to achieving various types of
7 commercial buildings in various climates; and

8 (4) deployment activities to disseminate infor-
9 mation on and encourage widespread adoption of
10 technologies, practices, and policies to achieve zero-
11 net-energy commercial buildings or low energy use
12 and effective monitoring of energy use in commercial
13 buildings.

14 (c) CRITERIA.—

15 (1) FEDERAL FACILITIES.—With respect to the
16 existing or proposed Federal facility at which a dem-
17 onstration project under this section is conducted,
18 the Federal facility shall—

19 (A) be an appropriate model for a project
20 relating to—

21 (i) the effectiveness of high-perform-
22 ance technologies;

23 (ii) analysis of materials, components,
24 systems, and emergency operations in the
25 building, and the impact of those mate-

1 rials, components, and systems, including
2 the impact on the health of building occu-
3 pants;

4 (iii) life-cycle costing and life-cycle as-
5 sessment of building materials and sys-
6 tems; and

7 (iv) location and design that promote
8 access to the Federal facility through walk-
9 ing, biking, and mass transit; and

10 (B) possess sufficient technological and or-
11 ganizational adaptability.

12 (2) UNIVERSITIES.—With respect to the 4 uni-
13 versities at which a demonstration project under this
14 section is conducted—

15 (A) the universities should be selected,
16 after careful review of all applications received
17 containing the required information, as deter-
18 mined by the Commercial Director, based on—

19 (i) successful and established public-
20 private research and development partner-
21 ships;

22 (ii) demonstrated capabilities to con-
23 struct or renovate buildings that meet high
24 indoor environmental quality standards;

25 (iii) organizational flexibility;

1 (iv) technological adaptability;

2 (v) the demonstrated capacity of at
3 least 1 university to replicate lessons
4 learned among nearby or sister univer-
5 sities, preferably by participation in groups
6 or consortia that promote sustainability;

7 (vi) the demonstrated capacity of at
8 least 1 university to have officially-adopt-
9 ed, institution-wide “high-performance
10 green building” guidelines for all campus
11 building projects; and

12 (vii) the demonstrated capacity of at
13 least 1 university to have been recognized
14 by similar institutions as a national leader
15 in sustainability education and curriculum
16 for students of the university; and

17 (B) each university shall be located in a
18 different climatic region of the United States,
19 each of which regions shall have, as determined
20 by the Office of Commercial High-Performance
21 Green Buildings—

22 (i) a hot, dry climate;

23 (ii) a hot, humid climate;

24 (iii) a cold climate; or

1 (iv) a temperate climate (including a
2 climate with cold winters and humid sum-
3 mers).

4 (d) REPORT.—Not later than 1 year after the date
5 of enactment of this Act, and annually thereafter through
6 September 30, 2014—

7 (1) the Federal Director and the Commercial
8 Director shall submit to the Secretary a report that
9 describes the status of the demonstration projects;
10 and

11 (2) each University at which a demonstration
12 project under this section is conducted shall submit
13 to the Secretary a report that describes the status
14 of the demonstration projects under this section.

15 **SEC. 9049. ENERGY EFFICIENCY FOR DATA CENTER BUILD-**
16 **INGS.**

17 (a) IN GENERAL.—

18 (1) Not later than 90 days after the date of en-
19 actment of this Act, the Secretary of Energy and
20 Administrator of the Environmental Protection
21 Agency shall jointly, after consulting with informa-
22 tion technology industry and other interested par-
23 ties, initiate a voluntary national information pro-
24 gram for those types of data centers and data center
25 equipment and facilities that are widely used and for

1 which there is a potential for significant data center
2 energy savings as a result of such program.

3 (2) Such program shall—

4 (A) consistent with the objectives of para-
5 graph (1), determine the type of data center
6 and data center equipment and facilities to be
7 covered under such program; and

8 (B) include specifications, measurements,
9 and benchmarks that will enable data center op-
10 erators to make more informed decisions about
11 the energy efficiency and costs of data centers,
12 and that—

13 (i) reflect the total energy consump-
14 tion of data centers, including both equip-
15 ment and facilities, taking into account—

16 (I) the performance and utiliza-
17 tion of servers, data storage devices,
18 and other information technology
19 equipment;

20 (II) the efficiency of heating,
21 ventilation, and air conditioning, cool-
22 ing, and power conditioning systems;

23 (III) energy savings from the
24 adoption of software and data man-
25 agement techniques; and

1 (IV) other factors determined by
2 the organization described in sub-
3 section (b);

4 (ii) allow for creation of separate
5 specifications, measurements, and bench-
6 marks based on data center size and func-
7 tion, as well as other appropriate charac-
8 teristics determined by the organization
9 described in subsection (b);

10 (iii) advance the design and imple-
11 mentation of efficiency technologies to the
12 maximum extent economically practical;
13 and

14 (iv) provide to data center operators
15 in the private sector and the Federal Gov-
16 ernment information about best practices
17 and purchasing decisions that reduce the
18 energy consumption of data centers;

19 (C) publish the information described in
20 subparagraph (B), which may be disseminated
21 through catalogs, trade publications, the Inter-
22 net, or other mechanisms, that will allow data
23 center operators to assess the energy consump-
24 tion and potential cost savings of alternative

1 data centers and data center equipment and fa-
2 cilities; and

3 (D) not later than 1 year after the date of
4 enactment of this Act, and thereafter on an on-
5 going basis, transmit the information described
6 in subparagraph (B) to the Secretary and the
7 Administrator.

8 (3) Such program shall be developed and co-
9 ordinated by the data center efficiency organization
10 described in subsection (b) according to commonly
11 accepted procedures for the development of specifica-
12 tions, measurements, and benchmarks.

13 (b) DATA CENTER EFFICIENCY ORGANIZATION.—
14 Upon creation of the program under subsection (a), the
15 Secretary and the Administrator shall jointly designate an
16 information technology industry organization to coordi-
17 nate the program. Such organization, whether preexisting
18 or formed specifically for the purposes of subsection (a),
19 shall—

20 (1) consist of interested parties that have exper-
21 tise in energy efficiency and in the development, op-
22 eration, and functionality of computer data centers,
23 information technology equipment, and software, as
24 well as representatives of hardware manufacturers,
25 data center operators, and facility managers;

1 (2) obtain and address input from Department
2 of Energy National Laboratories or any college, uni-
3 versity, research institution, industry association,
4 company, or public interest group with applicable ex-
5 pertise in any of the areas listed in paragraph (1)
6 of this subsection;

7 (3) follow commonly accepted procedures for
8 the development of specifications and accredited
9 standards development processes;

10 (4) have a mission to develop and promote en-
11 ergy efficiency for data centers and information
12 technology; and

13 (5) have the primary responsibility to oversee
14 the development and publishing of the information,
15 measurements, and benchmarks described in sub-
16 section (a) and transmission of such information to
17 the Secretary and the Administrator for their adop-
18 tion under subsection (c).

19 (c) ADOPTION OF SPECIFICATIONS.—The Secretary
20 and the Administrator shall jointly, in accordance with the
21 requirements of section 12(d) of the National Technology
22 Transfer Advancement Act of 1995, adopt and publish the
23 specifications, measurements, and benchmarks described
24 in subsection (a) for use by the Federal Energy Manage-
25 ment Program and the Energy Star program as energy

1 efficiency requirements for the purposes of those pro-
2 grams.

3 (d) MONITORING.—The Secretary and the Adminis-
4 trator shall jointly monitor and evaluate the efforts to de-
5 velop the program described in subsection (a) and, not
6 later than 3 years after the date of enactment of this Act,
7 shall make a determination as to whether such program
8 is consistent with the objectives of subsection (a).

9 (e) ALTERNATIVE SYSTEM.—If the Secretary and the
10 Administrator make a determination under subsection (d)
11 that a voluntary national information program for data
12 centers consistent with the objectives of subsection (a) has
13 not been developed, the Secretary and the Administrator
14 shall jointly, after consultation with the National Institute
15 of Standards and Technology, develop, not later than 2
16 years after such determination, and implement the pro-
17 gram under subsection (a).

18 (f) PROTECTION OF PROPRIETARY INFORMATION.—
19 The Secretary, the Administrator, or the data center effi-
20 ciency organization shall not disclose any proprietary in-
21 formation or trade secrets provided by any individual or
22 company for the purposes of carrying out this program.

23 (g) DEFINITIONS.—For purposes of this section:

24 (1) The term “data center” means any facility
25 that primarily contains electronic equipment used to

1 process, store, and transmit digital information,
2 which may be—

3 (A) a free-standing structure; or

4 (B) a facility within a larger structure,
5 that utilizes environmental control equipment to
6 maintain the proper conditions for the oper-
7 ation of electronic equipment.

8 (2) The term “data center operator” means any
9 person or government entity that builds or operates
10 a data center or purchases data center services,
11 equipment, and facilities.

12 **SEC. 9050. AUTHORIZATION OF APPROPRIATIONS.**

13 (a) IN GENERAL.—In addition to amounts authorized
14 under subsections (b), (c), and (d), there are authorized
15 to be appropriated to carry out this part, other than sec-
16 tion 9052—

17 (1) \$10,000,000 for fiscal year 2008; and

18 (2) \$20,000,000 for each of the fiscal years
19 2009 through 2014, to remain available until ex-
20 pended.

21 (b) ZERO-ENERGY COMMERCIAL BUILDINGS INITIA-
22 TIVE.—There are authorized to be appropriated to carry
23 out the initiative described in section 9044—

24 (1) \$20,000,000 for fiscal year 2008;

1 (2) \$50,000,000 for each of fiscal years 2009
2 and 2010;

3 (3) \$100,000,000 for each of fiscal years 2011
4 and 2012;

5 (4) \$200,000,000 for each of fiscal years 2013
6 through 2050.

7 (c) DEMONSTRATION PROJECTS.—

8 (1) FEDERAL DEMONSTRATION PROJECT.—

9 There are authorized to be appropriated to carry out
10 the Federal demonstration project described in sec-
11 tion 9048(b)(1) \$10,000,000 for the period of fiscal
12 years 2009 through 2014, to remain available until
13 expended.

14 (2) UNIVERSITY DEMONSTRATION PROJECTS.—

15 There are authorized to be appropriated to carry out
16 the university demonstration projects described in
17 section 9048(b)(2) \$10,000,000 for the period of fis-
18 cal years 2009 through 2014, to remain available
19 until expended.

20 (d) ENERGY EFFICIENCY FOR DATA CENTER BUILD-

21 INGS.—There are authorized to be appropriated to each
22 of the Secretary and the Administrator for carrying out
23 section 9049 \$250,000 for each of the fiscal years 2008
24 through 2012.

1 **SEC. 9051. STUDY AND REPORT ON USE OF POWER MAN-**
2 **AGEMENT SOFTWARE.**

3 (a) STUDY.—The Secretary of Energy, through the
4 Federal Energy Management Program, shall conduct a
5 study on the use of power management software by the
6 Department of Energy and Federal facilities to reduce the
7 use of electricity in computer monitors and personal com-
8 puters.

9 (b) REPORT.—Not later than 60 days after the date
10 of enactment of the Act, the Secretary shall submit to
11 Congress a report containing the results of the study
12 under subsection (a), including a description of the rec-
13 ommendations developed under the study. The Secretary
14 and the Federal Energy Management Program are en-
15 couraged to draw upon similar studies and efforts by other
16 Federal entities on power management software.

17 **SEC. 9052. HIGH-PERFORMANCE GREEN BUILDINGS RET-**
18 **ROFIT LOAN GUARANTEES.**

19 (a) DEFINITIONS.—In this section:

20 (1) COST.—The term “cost” has the meaning
21 given the term “cost of a loan guarantee” within the
22 meaning of section 502(5)(C) of the Federal Credit
23 Reform Act of 1990 (2 U.S.C. 661a(5)(C)).

24 (2) GUARANTEE.—

25 (A) IN GENERAL.—The term “guarantee”
26 has the meaning given the term “loan guar-

1 antee” in section 502 of the Federal Credit Re-
2 form Act of 1990 (2 U.S.C. 661a).

3 (B) INCLUSION.—The term “guarantee”
4 includes a loan guarantee commitment (as de-
5 fined in section 502 of the Federal Credit Re-
6 form Act of 1990 (2 U.S.C. 661a)).

7 (3) OBLIGATION.—The term “obligation”
8 means the loan or other debt obligation that is guar-
9 anteed under this section.

10 (4) SECRETARY.—The term “Secretary” means
11 the Secretary of Energy.

12 (b) ELIGIBLE PURPOSES.—Except for division C of
13 Public Law 108–423, the Commercial Director shall make
14 loan guarantees under this section for renovation projects
15 that are eligible projects within the meaning of section
16 1703 of the Energy Policy Act of 2005 and that will result
17 in a building achieving the United States Green Building
18 Council Leadership in Energy and Environmental Design
19 “certified” level, or meeting a comparable standard ap-
20 proved by the Commercial Director.

21 (c) TERMS AND CONDITIONS.—

22 (1) IN GENERAL.—The Commercial Director
23 shall make guarantees under this section for projects
24 on such terms and conditions as the Commercial Di-
25 rector determines, after consultation with the Sec-

1 retary of the Treasury, in accordance with this sec-
2 tion, including limitations on the amount of any loan
3 guarantee to ensure distribution to a variety of bor-
4 rowers.

5 (2) SPECIFIC APPROPRIATION OR CONTRIBU-
6 TION.—No guarantee shall be made under this sec-
7 tion unless—

8 (A) an appropriation for the cost has been
9 made; or

10 (B) the Commercial Director has received
11 from the borrower a payment in full for the
12 cost of the obligation and deposited the pay-
13 ment into the Treasury.

14 (3) LIMITATION.—Not more than \$100,000,000
15 in loans may be guaranteed under this section at
16 any one time.

17 (4) AMOUNT.—Unless otherwise provided by
18 law, a guarantee by the Commercial Director under
19 this section shall not exceed an amount equal to 80
20 percent of the project cost that is the subject of the
21 guarantee, as estimated at the time at which the
22 guarantee is issued.

23 (5) REPAYMENT.—No guarantee shall be made
24 under this section unless the Commercial Director
25 determines that there is reasonable prospect of re-

1 payment of the principal and interest on the obliga-
2 tion by the borrower.

3 (6) INTEREST RATE.—An obligation shall bear
4 interest at a rate that does not exceed a level that
5 the Commercial Director determines appropriate,
6 taking into account the prevailing rate of interest in
7 the private sector for similar loans and risks.

8 (7) TERM.—The term of an obligation shall re-
9 quire full repayment over a period not to exceed the
10 lesser of—

11 (A) 30 years; or

12 (B) 90 percent of the projected useful life
13 of the building whose renovation is to be fi-
14 nanced by the obligation (as determined by the
15 Commercial Director).

16 (8) DEFAULTS.—

17 (A) PAYMENT BY COMMERCIAL DIREC-
18 TOR.—

19 (i) IN GENERAL.—If a borrower de-
20 faults on the obligation (as defined in reg-
21 ulations promulgated by the Commercial
22 Director and specified in the guarantee
23 contract), the holder of the guarantee shall
24 have the right to demand payment of the

1 unpaid amount from the Commercial Di-
2 rector.

3 (ii) PAYMENT REQUIRED.—Within
4 such period as may be specified in the
5 guarantee or related agreements, the Com-
6 mercial Director shall pay to the holder of
7 the guarantee the unpaid interest on, and
8 unpaid principal of the obligation as to
9 which the borrower has defaulted, unless
10 the Commercial Director finds that there
11 was no default by the borrower in the pay-
12 ment of interest or principal or that the
13 default has been remedied.

14 (iii) FORBEARANCE.—Nothing in this
15 paragraph precludes any forbearance by
16 the holder of the obligation for the benefit
17 of the borrower which may be agreed upon
18 by the parties to the obligation and ap-
19 proved by the Commercial Director.

20 (B) SUBROGATION.—

21 (i) IN GENERAL.—If the Commercial
22 Director makes a payment under subpara-
23 graph (A), the Commercial Director shall
24 be subrogated to the rights of the recipient
25 of the payment as specified in the guar-

1 antee or related agreements including,
2 where appropriate, the authority (notwith-
3 standing any other provision of law) to—

4 (I) complete, maintain, operate,
5 lease, or otherwise dispose of any
6 property acquired pursuant to such
7 guarantee or related agreements; or

8 (II) permit the borrower, pursu-
9 ant to an agreement with the Com-
10 mercial Director, to continue to pur-
11 sue the purposes of the project if the
12 Commercial Director determines this
13 to be in the public interest.

14 (ii) SUPERIORITY OF RIGHTS.—The
15 rights of the Commercial Director, with re-
16 spect to any property acquired pursuant to
17 a guarantee or related agreements, shall be
18 superior to the rights of any other person
19 with respect to the property.

20 (iii) TERMS AND CONDITIONS.—A
21 guarantee agreement shall include such de-
22 tailed terms and conditions as the Com-
23 mercial Director determines appropriate
24 to—

1 (I) protect the interests of the
2 United States in the case of default;
3 and

4 (II) have available all the patents
5 and technology necessary for any per-
6 son selected, including the Commer-
7 cial Director, to complete and operate
8 the project.

9 (C) PAYMENT OF PRINCIPAL AND INTER-
10 EST BY COMMERCIAL DIRECTOR.—With respect
11 to any obligation guaranteed under this section,
12 the Commercial Director may enter into a con-
13 tract to pay, and pay, holders of the obligation,
14 for and on behalf of the borrower, from funds
15 appropriated for that purpose, the principal and
16 interest payments which become due and pay-
17 able on the unpaid balance of the obligation if
18 the Commercial Director finds that—

19 (i)(I) the borrower is unable to meet
20 the payments and is not in default;

21 (II) it is in the public interest to per-
22 mit the borrower to continue to pursue the
23 purposes of the project; and

24 (III) the probable net benefit to the
25 Federal Government in paying the prin-

1 cipal and interest will be greater than that
2 which would result in the event of a de-
3 fault;

4 (ii) the amount of the payment that
5 the Commercial Director is authorized to
6 pay shall be no greater than the amount of
7 principal and interest that the borrower is
8 obligated to pay under the agreement
9 being guaranteed; and

10 (iii) the borrower agrees to reimburse
11 the Commercial Director for the payment
12 (including interest) on terms and condi-
13 tions that are satisfactory to the Commer-
14 cial Director.

15 (D) ACTION BY ATTORNEY GENERAL.—

16 (i) NOTIFICATION.—If the borrower
17 defaults on an obligation, the Commercial
18 Director shall notify the Attorney General
19 of the default.

20 (ii) RECOVERY.—On notification, the
21 Attorney General shall take such action as
22 is appropriate to recover the unpaid prin-
23 cipal and interest due from—

1 (I) such assets of the defaulting
2 borrower as are associated with the
3 obligation; or

4 (II) any other security pledged to
5 secure the obligation.

6 (9) FEES.—

7 (A) IN GENERAL.—The Commercial Direc-
8 tor shall charge and collect fees for guarantees
9 in amounts the Commercial Director determines
10 are sufficient to cover applicable administrative
11 expenses.

12 (B) AVAILABILITY.—Fees collected under
13 this paragraph shall—

14 (i) be deposited by the Commercial
15 Director into the Treasury; and

16 (ii) remain available until expended,
17 subject to such other conditions as are con-
18 tained in annual appropriations Acts.

19 (10) RECORDS; AUDITS.—

20 (A) IN GENERAL.—A recipient of a guar-
21 antee shall keep such records and other perti-
22 nent documents as the Commercial Director
23 shall prescribe by regulation, including such
24 records as the Commercial Director may require
25 to facilitate an effective audit.

1 (B) ACCESS.—The Commercial Director
 2 and the Comptroller General of the United
 3 States, or their duly authorized representatives,
 4 shall have access, for the purpose of audit, to
 5 the records and other pertinent documents.

6 (11) FULL FAITH AND CREDIT.—The full faith
 7 and credit of the United States is pledged to the
 8 payment of all guarantees issued under this section
 9 with respect to principal and interest.

10 **SEC. 9053. GEOTHERMAL HEAT PUMP TECHNOLOGY ACCEL-**
 11 **ERATION PROGRAM.**

12 (a) DEFINITIONS.—In this section:

13 (1) ADMINISTRATOR.—The term “Adminis-
 14 trator” means the Administrator of General Serv-
 15 ices.

16 (2) GENERAL SERVICES ADMINISTRATION FA-
 17 CILITY.—

18 (A) IN GENERAL.—The term “General
 19 Services Administration facility” means any
 20 building, structure, or facility, in whole or in
 21 part (including the associated support systems
 22 of the building, structure, or facility), that—

23 (i) is constructed (including facilities
 24 constructed for lease), renovated, or pur-
 25 chased, in whole or in part, by the Admin-

1 istrator for use by the Federal Govern-
2 ment; or

3 (ii) is leased, in whole or in part, by
4 the Administrator for use by the Federal
5 Government—

6 (I) except as provided in sub-
7 clause (II), for a term of not less than
8 5 years; or

9 (II) for a term of less than 5
10 years, if the Administrator determines
11 that use of cost-effective technologies
12 and practices would result in the pay-
13 back of expenses.

14 (B) INCLUSION.—The term “General Serv-
15 ices Administration facility” includes any group
16 of buildings, structures, or facilities described in
17 subparagraph (A) (including the associated en-
18 ergy-consuming support systems of the build-
19 ings, structures, and facilities).

20 (C) EXEMPTION.—The Administrator may
21 exempt from the definition of “General Services
22 Administration facility” under this paragraph a
23 building, structure, or facility that meets the re-
24 quirements of section 543(c) of Public Law 95-
25 619 (42 U.S.C. 8253(c)).

1 (b) ESTABLISHMENT.—

2 (1) IN GENERAL.—The Administrator shall es-
3 tablish a program to accelerate the use of geo-
4 thermal heat pumps at General Services Administra-
5 tion facilities.

6 (2) REQUIREMENTS.—The program established
7 under this subsection shall—

8 (A) ensure centralized responsibility for
9 the coordination of geothermal heat pump rec-
10 ommendations, practices, and activities of all
11 relevant Federal agencies;

12 (B) provide technical assistance and oper-
13 ational guidance to applicable tenants to
14 achieve the goal identified in subsection
15 (c)(2)(B)(ii); and

16 (C) establish methods to track the success
17 of Federal departments and agencies with re-
18 spect to that goal.

19 (c) ACCELERATED USE OF GEOTHERMAL HEAT
20 PUMP TECHNOLOGIES.—

21 (1) REVIEW.—

22 (A) IN GENERAL.—As part of the program
23 under this section, not later than 90 days after
24 the date of enactment of this Act, the Adminis-
25 trator shall conduct a review of—

1 (i) current use of geothermal heat
2 pump technologies in General Services Ad-
3 ministration facilities; and

4 (ii) the availability to managers of
5 General Services Administration facilities
6 of geothermal heat pumps.

7 (B) REQUIREMENTS.—The review under
8 subparagraph (A) shall—

9 (i) examine the use of geothermal heat
10 pumps by Federal agencies in General
11 Services Administration facilities; and

12 (ii) as prepared in consultation with
13 the Administrator of the Environmental
14 Protection Agency, identify geothermal
15 heat pump technology standards that could
16 be used for all types of General Services
17 Administration facilities.

18 (2) REPLACEMENT.—

19 (A) IN GENERAL.—As part of the program
20 under this section, not later than 180 days
21 after the date of enactment of this Act, the Ad-
22 ministrator shall establish, using available ap-
23 propriations, a geothermal heat pump tech-
24 nology acceleration program to achieve max-
25 imum feasible replacement of existing heating

1 and cooling technologies with geothermal heat
2 pump technologies in each General Services Ad-
3 ministration facility.

4 (B) ACCELERATION PLAN TIMETABLE.—

5 (i) IN GENERAL.—To implement the
6 program established under subparagraph
7 (A), not later than 1 year after the date of
8 enactment of this Act, the Administrator
9 shall establish a timetable, including mile-
10 stones for specific activities needed to re-
11 place existing heating and cooling tech-
12 nologies with geothermal heat pump tech-
13 nologies, to the maximum extent feasible
14 (including at the maximum rate feasible),
15 at each General Services Administration
16 facility.

17 (ii) GOAL.—The goal of the timetable
18 under clause (i) shall be to complete, using
19 available appropriations, maximum feasible
20 replacement of existing heating and cooling
21 technologies with geothermal heat pump
22 technologies by not later than the date that
23 is 5 years after the date of enactment of
24 this Act.

1 (d) GENERAL SERVICES ADMINISTRATION FACILITY
2 GEOTHERMAL HEAT PUMP TECHNOLOGIES AND PRAC-
3 TICES.— Not later than 180 days after the date of enact-
4 ment of this Act, and annually thereafter, the Adminis-
5 trator shall—

6 (1) ensure that a manager responsible for accel-
7 erating the use of geothermal heat pump tech-
8 nologies is designated for each General Services Ad-
9 ministration facility geothermal heat pump tech-
10 nologies and practices facility; and

11 (2) submit to Congress a plan, to be imple-
12 mented to the maximum extent feasible (including at
13 the maximum rate feasible) using available appro-
14 priations, by not later than the date that is 5 years
15 after the date of enactment of this Act, that—

16 (A) includes an estimate of the funds nec-
17 essary to carry out this section;

18 (B) describes the status of the implementa-
19 tion of geothermal heat pump technologies and
20 practices at General Services Administration fa-
21 cilities, including—

22 (i) the extent to which programs, in-
23 cluding the program established under sub-
24 section (b), are being carried out in ac-
25 cordance with this Act; and

1 (ii) the status of funding requests and
2 appropriations for those programs;

3 (C) identifies within the planning, budg-
4 eting, and construction processes, all types of
5 General Services Administration facility-related
6 procedures that inhibit new and existing Gen-
7 eral Services Administration facilities from im-
8 plementing geothermal heat pump technologies;

9 (D) recommends language for uniform
10 standards for use by Federal agencies in imple-
11 menting geothermal heat pump technologies
12 and practices;

13 (E) in coordination with the Office of Man-
14 agement and Budget, reviews the budget proc-
15 ess for capital programs with respect to alter-
16 natives for—

17 (i) permitting Federal agencies to re-
18 tain all identified savings accrued as a re-
19 sult of the use of geothermal heat pump
20 technologies; and

21 (ii) identifying short- and long-term
22 cost savings that accrue from the use of
23 geothermal heat pump technologies and
24 practices;

1 (F) achieves substantial operational cost
2 savings through the application of geothermal
3 heat pump technologies; and

4 (G) includes recommendations to address
5 each of the matters, and a plan for implementa-
6 tion of each recommendation, described in sub-
7 paragraphs (A) through (F).

8 (e) AUTHORIZATION OF APPROPRIATIONS.—There
9 are authorized to be appropriated such sums as are nec-
10 essary to carry out this section, to remain available until
11 expended.

12 **SEC. 9054. GREEN MEETINGS.**

13 (a) PURCHASE OF MEETING AND CONFERENCE
14 SERVICES.—Not later than 180 days after the date of the
15 enactment of this Act, the Administrator for Federal Pro-
16 curement Policy shall ensure that the Federal Acquisition
17 Regulation is revised to require each Federal agency to
18 consider, in each purchase of meeting and conference serv-
19 ices, the environmentally preferable features and practices
20 of a vendor in a manner substantially similar to that re-
21 quired of the Environmental Protection Agency in section
22 1523.703–1 (relating to acquisition of environmentally
23 preferable meeting and conference services) and section
24 1552.223–71 (relating to EPA Green Meetings and Con-
25 ferences) of title 48, Code of Federal Regulations, as set

1 forth in the Environmental Protection Agency final rule
2 published on pages 18401 through 18404 of volume 72,
3 Federal Register (April 12, 2007).

4 (b) DEFINITIONS.—In this section—

5 (1) the terms “environmentally preferable” and
6 “Federal agency” have the meanings given them by
7 section 2.101 of the Federal Acquisition Regulation;
8 and

9 (2) the term “meeting and conference services”
10 means the use of off-site commercial facilities for a
11 Federal agency event, including an event for a meet-
12 ing, conference, training session, or other purpose.

13 **SEC. 9055. ENERGY SUSTAINABILITY AND EFFICIENCY**
14 **GRANTS FOR INSTITUTIONS OF HIGHER EDU-**
15 **CATION.**

16 Part G of title III of the Energy Policy and Conserva-
17 tion Act is amended by inserting after section 399 (42
18 U.S.C. 371h) the following:

19 **“SEC. 399A. ENERGY SUSTAINABILITY AND EFFICIENCY**
20 **GRANTS FOR INSTITUTIONS OF HIGHER EDU-**
21 **CATION.**

22 “(a) DEFINITIONS.—In this section:

23 “(1) ENERGY SUSTAINABILITY.—The term ‘en-
24 ergy sustainability’ includes using a renewable en-
25 ergy resource and a highly efficient technology for

1 electricity generation, transportation, heating, or
2 cooling.

3 “(2) INSTITUTION OF HIGHER EDUCATION.—

4 The term ‘institution of higher education’ has the
5 meaning given the term in section 2 of the Energy
6 Policy Act of 2005 (42 U.S.C. 15801).

7 “(b) GRANTS FOR ENERGY EFFICIENCY IMPROVE-
8 MENT.—

9 “(1) IN GENERAL.—The Secretary shall award
10 not more than 100 grants per year to institutions of
11 higher education to carry out projects to improve en-
12 ergy efficiency on the grounds and facilities of the
13 institution of higher education, including not less
14 than 1 grant to an institution of higher education in
15 each State.

16 “(2) CONDITION.—As a condition of receiving a
17 grant under this subsection, an institution of higher
18 education shall agree to—

19 “(A) implement a public awareness cam-
20 paign concerning the project in the community
21 in which the institution of higher education is
22 located; and

23 “(B) submit to the Secretary, and make
24 available to the public, reports on any efficiency
25 improvements, energy cost savings, and environ-

1 mental benefits achieved as part of a project
2 carried out under paragraph (1).

3 “(c) GRANTS FOR INNOVATION IN ENERGY SUSTAIN-
4 ABILITY.—

5 “(1) IN GENERAL.—The Secretary shall award
6 not more than 250 grants per year to institutions of
7 higher education to engage in innovative energy sus-
8 tainability projects, including not less than 2 grants
9 to institutions of higher education in each State.

10 “(2) INNOVATION PROJECTS.—An innovation
11 project carried out with a grant under this sub-
12 section shall—

13 “(A) involve—

14 “(i) an innovative technology that is
15 not yet commercially available; or

16 “(ii) available technology in an inno-
17 vative application that maximizes energy
18 efficiency and sustainability;

19 “(B) have the greatest potential for testing
20 or demonstrating new technologies or processes;
21 and

22 “(C) ensure active student participation in
23 the project, including the planning, implementa-
24 tion, evaluation, and other phases of the
25 project.

1 “(3) CONDITION.—As a condition of receiving a
2 grant under this subsection, an institution of higher
3 education shall agree to submit to the Secretary,
4 and make available to the public, reports that de-
5 scribe the results of the projects carried out under
6 paragraph (1).

7 “(d) AWARDING OF GRANTS.—

8 “(1) APPLICATION.—An institution of higher
9 education that seeks to receive a grant under this
10 section may submit to the Secretary an application
11 for the grant at such time, in such form, and con-
12 taining such information as the Secretary may pre-
13 scribe.

14 “(2) SELECTION.—The Secretary shall estab-
15 lish a committee to assist in the selection of grant
16 recipients under this section.

17 “(e) ALLOCATION TO INSTITUTIONS OF HIGHER
18 EDUCATION WITH SMALL ENDOWMENTS.—Of the
19 amount of grants provided for a fiscal year under this sec-
20 tion, the Secretary shall provide not less than 50 percent
21 of the amount to institutions of higher education that have
22 an endowment of not more than \$100,000,000, with 50
23 percent of the allocation set aside for institutions of higher
24 education that have an endowment of not more than
25 \$50,000,000.

1 “(f) GRANT AMOUNTS.—The maximum amount of
2 grants for a project under this section shall not exceed—

3 “(1) in the case of grants for energy efficiency
4 improvement under subsection (b), \$1,000,000; or

5 “(2) in the case of grants for innovation in en-
6 ergy sustainability under subsection (c), \$500,000.

7 “(g) AUTHORIZATION OF APPROPRIATIONS.—There
8 are authorized to be appropriated such sums as are nec-
9 essary to carry out this section for each of fiscal years
10 2008 through 2012.”.

11 **PART 5—INDUSTRIAL ENERGY EFFICIENCY**

12 **SEC. 9061. INDUSTRIAL ENERGY EFFICIENCY.**

13 (a) AMENDMENT.—Title III of the Energy Policy and
14 Conservation Act (42 U.S.C. 6201 and following) is
15 amended by adding the following after part D:

16 **“PART E—INDUSTRIAL ENERGY EFFICIENCY**

17 **“SEC. 371. SURVEY OF WASTE INDUSTRIAL ENERGY RECOV- 18 ERY AND POTENTIAL USE.**

19 “Congress finds that—

20 “(1) the Nation should encourage the use of
21 otherwise wasted energy and the development of
22 combined heat and power and other waste energy re-
23 covery projects where there is wasted thermal energy
24 in large volumes at potentially useful temperatures;

1 “(2) such projects would increase energy effi-
2 ciency and lower pollution by generating power with
3 no incremental fossil fuel consumption;

4 “(3) because recovered waste energy and com-
5 bined heat and power projects are associated with
6 end-uses of thermal energy and electricity at the
7 local level, they help avoid new transmission lines,
8 reduce line losses, reduce local air pollutant emis-
9 sions, and reduce vulnerability to extreme weather
10 and terrorism; and

11 “(4) States, localities, electric utilities, and
12 other electricity customers may benefit from private
13 investments in recovered waste energy and combined
14 heat and power projects at industrial and commer-
15 cial sites by avoiding generation, transmission and
16 distribution expenses, and transmission line loss ex-
17 penses that may otherwise be required to be recov-
18 ered from ratepayers.

19 **“SEC. 372. DEFINITIONS.**

20 “For purposes of this Part:

21 “(1) The term ‘Administrator’ means the Ad-
22 ministrators of the Environmental Protection Agency.

23 “(2) The term ‘waste energy’ means__

24 “(A) exhaust heat and flared gases from
25 any industrial process;

1 “(B) waste gas or industrial tail gas that
2 would otherwise be flared, incinerated or vent-
3 ed;

4 “(C) a pressure drop in any gas, excluding
5 any pressure drop to a condenser that subse-
6 quently vents the resulting heat; and

7 “(D) such other forms of waste energy as
8 the Administrator may identify.

9 “(3) The term ‘recoverable waste energy’ means
10 waste energy from which electricity or useful ther-
11 mal energy may be recovered through modification
12 of existing facilities or addition of new facilities.

13 “(4) The term ‘net excess power’ means, for
14 any facility, recoverable waste energy recovered in
15 the form of electricity in amounts exceeding the total
16 consumption of electricity at the specific time of gen-
17 eration on the site where the facility is located.

18 “(5) The term ‘useful thermal energy’ is energy
19 in the forms of direct heat, steam, hot water, or
20 other thermal forms that is used in production and
21 beneficial measures for heating, cooling, humidity
22 control, process use, or other valid thermal end-use
23 energy requirements, and for which fuel or elec-
24 tricity would otherwise be consumed.

1 “(6) The term ‘combined heat and power sys-
2 tem’ means a facility—

3 “(A) that simultaneously and efficiently
4 produces useful thermal energy and electricity;
5 and

6 “(B) that recovers not less than 60 percent
7 of the energy value in the fuel (on a lower-heat-
8 ing-value basis) in the form of useful thermal
9 energy and electricity.

10 “(7) The terms ‘electric utility’, ‘State regu-
11 lated electric utility’, ‘nonregulated electric utility’
12 and other terms used in this Part have the same
13 meanings as when such terms are used in title I of
14 the Public Utility Regulatory Policies Act of 1978
15 (relating to retail regulatory policies for electric utili-
16 ties).

17 **“SEC. 373. SURVEY AND REGISTRY.**

18 “(a) RECOVERABLE WASTE-ENERGY INVENTORY
19 PROGRAM.—The Administrator, in cooperation with State
20 energy offices, shall establish a Recoverable Waste-Energy
21 Inventory Program. The program shall include an ongoing
22 survey of all major industrial and large commercial com-
23 bustion sources in the United States and the sites where
24 these are located, together with a review of each for quan-
25 tity and quality of waste energy.

1 “(b) CRITERIA.—The Administrator shall, within 120
2 days after the enactment of this section, develop and pub-
3 lish proposed criteria subject to notice and comment, and
4 within 270 days of enactment, establish final criteria, to
5 identify and designate those sources and sites in the inven-
6 tory under subsection (a) where recoverable waste energy
7 projects or combined heat and power system projects may
8 have economic feasibility with a payback of invested costs
9 within 5 years or less from the date of first full project
10 operation (including incentives offered under this Part).
11 Such criteria will include standards that insure that
12 projects proposed for inclusion in the Registry are not de-
13 veloped for the primary purpose of making sales of excess
14 electric power under the regulatory treatment provided
15 under this Part.

16 “(c) TECHNICAL SUPPORT.—The Administrator shall
17 provide to owners or operators of combustion sources tech-
18 nical support and offer partial funding (up to one-half of
19 total costs) for feasibility studies to confirm whether or
20 not investment in recovery of waste energy or combined
21 heat and power at that source would offer a payback pe-
22 riod of 5 years or less.

23 “(d) REGISTRY.—(1) The Administrator shall, within
24 one year after the enactment of this section, establish a
25 Registry of Recoverable Waste-energy Sources, and sites

1 on which those sources are located, which meet the criteria
2 set forth under subsection (b). The Administrator shall
3 update the Registry on not less than a monthly basis, and
4 make the Registry accessible to the public on the Environ-
5 mental Protection Agency web site. Any State or electric
6 utility may contest the listing of any source or site by sub-
7 mitting a petition to the Administrator.

8 “(2) The Administrator shall register and include on
9 the Registry all sites meeting the criteria of subsection (b).
10 The Administrator shall calculate the total amounts of po-
11 tentially recoverable waste energy from sources at such
12 sites, nationally and by State, and shall make such totals
13 public, together with information on the air pollutant and
14 greenhouse gas emissions savings that might be achieved
15 with recovery of the waste energy from all sources and
16 sites listed in the Registry.

17 “(3) The Administrator shall notify owners or opera-
18 tors of Recoverable Waste-Energy Sources and sites listed
19 in the Registry prior to publishing the listing. The owner
20 or operator of sources at such sites may elect to have de-
21 tailed quantitative information concerning that site not
22 made public by notifying the Administrator of that elec-
23 tion. Information concerning that site shall be included in
24 State totals unless there are fewer than 3 sites in the
25 State.

1 “(4) As waste energy projects achieve successful re-
2 covery of waste energy, the Administrator shall remove the
3 related sites or sources from the Registry, and shall des-
4 ignate the removed projects as eligible for the incentive
5 provisions provided under this Part and the regulatory
6 treatment required by this Part. No project shall be re-
7 moved from the Registry without the consent of the owner
8 or operator of the project if the owner or operator has
9 submitted a petition under section 375 and such petition
10 has not been acted upon or denied.

11 “(5) The Administrator shall not list any source con-
12 structed after the date of the enactment of this Part on
13 the Registry if the Administrator determines that such
14 source—

15 “(A) was developed for the primary purpose of
16 making sales of excess electric power under the reg-
17 ulatory treatment provided under this Part; or

18 “(B) does not capture at least 60 percent of the
19 total energy value of the fuels used (on a lower-heat-
20 ing-value basis) in the form of useful thermal en-
21 ergy, electricity, mechanical energy, chemical output,
22 or some combination of them.

23 “(e) SELF-CERTIFICATION.—Owners, operators, or
24 third-party developers of industrial waste-energy projects
25 that qualify under standards established by the Adminis-

1 trator may self-certify their sites or sources to the Admin-
2 istrator for inclusion in the Registry, subject to procedures
3 adopted by the Administrator. To prevent a fraudulent
4 listing, the sources shall be included on the Registry only
5 if the Administrator confirms the submitted data, at the
6 Administrator's discretion.

7 “(f) NEW FACILITIES.—As a new energy-consuming
8 industrial facility is developed after the enactment of this
9 Part, to the extent it may constitute a site with recover-
10 able waste energy that may qualify for the Registry, the
11 Administrator may elect to include it in the Registry at
12 the request of its owner or operator or developer on a con-
13 ditional basis, removing the site if its development ceases
14 or it if fails to qualify for listing under this Part.

15 “(g) OPTIMUM MEANS OF RECOVERY.—For each site
16 listed in the Registry, at the request of the owner or oper-
17 ator of the site, the Administrator shall offer, in coopera-
18 tion with Clean Energy Application Centers operated by
19 the Secretary of Energy, suggestions of optimum means
20 of recovery of value from waste energy stream in the form
21 of electricity, useful thermal energy, or other energy-re-
22 lated products.

23 “(h) REVISION.—Each annual State report under
24 section 548(a) of the National Energy Conservation Policy

1 Act shall include the results of the survey for that State
2 under this section.

3 “(i) AUTHORIZATION.—There are authorized to be
4 appropriated to the Administrator for the purposes of cre-
5 ating and maintaining the Registry and services author-
6 ized by this section not more than \$1,000,000 for each
7 of fiscal years 2008, 2009, 2010, 2010, and 2012 and not
8 more than \$5,000,000 to the States to provide funding
9 for State energy office functions under this section.

10 **“SEC. 374. WASTE ENERGY RECOVERY INCENTIVE GRANT**
11 **PROGRAM.**

12 “(a) ESTABLISHMENT OF PROGRAM.—There is es-
13 tablished in the Environmental Protection Agency a Waste
14 Energy Recovery Incentive Grant Program to provide in-
15 centive grants to owners and operators of projects that
16 successfully produce electricity or incremental useful ther-
17 mal energy from waste energy recovery (and to utilities
18 purchasing or distributing such electricity) and to reward
19 States that have achieved 80 percent or more of identified
20 waste-heat recovery opportunities.

21 “(b) GRANTS TO PROJECTS AND UTILITIES.—

22 “(1) IN GENERAL.—The Administrator shall
23 make grants to the owners or operators of waste en-
24 ergy recovery projects, and, in the case of excess
25 power purchased or transmitted by a electric utility,

1 to such utility. Grants may only be made upon re-
2 ceipt of proof of waste energy recovery or excess
3 electricity generation, or both, from the project in a
4 form prescribed by the Administrator, by rule.

5 “(2) EXCESS ELECTRIC ENERGY.—In the case
6 of waste energy recovery, the grants under this sec-
7 tion shall be made at the rate of \$10 per megawatt
8 hour of documented electricity produced from recov-
9 ered waste energy (or by prevention of waste energy
10 in the case of a new facility) by the project during
11 the first 3 calendar years of such production, begin-
12 ning on or after the date of enactment of this Part.
13 If the project produces net excess power and an elec-
14 tric utility purchases or transmits the excess power,
15 50 percent of so much of such grant as is attrib-
16 utable to the net excess power shall be paid to the
17 electric utility purchasing or transporting the net ex-
18 cess power.

19 “(3) USEFUL THERMAL ENERGY.—In the case
20 of waste energy recovery that produces useful ther-
21 mal energy that is used for a purpose different from
22 that for which the project is principally designed, the
23 grants under this section shall be made to the owner
24 or operator of the waste energy recovery project at

1 the rate of \$10 for each 3,412,000 Btus of such ex-
2 cess thermal energy used for such different purpose.

3 “(c) GRANTS TO STATES.—In the case of States that
4 have achieved 80 percent or more of waste-heat recovery
5 opportunities identified by the Administrator under this
6 Part, the Administrator shall make grants to the States
7 of up to \$1,000 per Megawatt of waste-heat capacity re-
8 covered (or its thermal equivalent) to support State-level
9 programs to identify and achieve additional energy effi-
10 ciency.

11 “(d) ELIGIBILITY.—The Administrator shall estab-
12 lish rules and guidelines to establish eligibility for grants,
13 shall make the grant program known to those listed in
14 the Registry, and shall offer such grants on the basis of
15 the merits of each project in recovering or preventing
16 waste energy throughout the United States on an impar-
17 tial, objective, and not unduly discriminatory basis.

18 “(e) AUTHORIZATION.—(1) There is authorized to be
19 appropriated to the Administrator \$100,000,000 for fiscal
20 year 2008, and \$200,000,000 for each of fiscal years
21 2009, 2010, 2011, and 2012 for grants under subsection
22 (b) of this section, and such additional amounts during
23 those years and thereafter as may be necessary for admin-
24 istration of the Waste Energy Recovery Incentive Grant
25 Program.

1 “(2) There is authorized to be appropriated to the
2 Administrator not more than \$10,000,000 for each of the
3 first five fiscal years after the enactment of this Part, to
4 be available until expended for purposes of grants to
5 States under subsection (c).

6 **“SEC. 375. ADDITIONAL INCENTIVES FOR RECOVERY, UTILI-**
7 **ZATION AND PREVENTION OF INDUSTRIAL**
8 **WASTE ENERGY.**

9 “(a) CONSIDERATION OF STANDARD.—Not later
10 than 180 days after the receipt by a State regulatory au-
11 thority (with respect to each electric utility for which it
12 has ratemaking authority), or nonregulated electric utility,
13 of a request from a project sponsor or owner or operator,
14 the State regulatory authority or nonregulated electric
15 utility shall provide public notice and conduct a hearing
16 respecting the standard established by subsection (b) and,
17 on the basis of such hearing, shall consider and make a
18 determination whether or not it is appropriate to imple-
19 ment such standard to carry out the purposes of this Part.
20 For purposes of any such determination and any review
21 of such determination in any court the purposes of this
22 section supplement otherwise applicable State law. Noth-
23 ing in this Part prohibits any State regulatory authority
24 or nonregulated electric utility from making any deter-
25 mination that it is not appropriate to adopt any such

1 standard, pursuant to its authority under otherwise appli-
2 cable State law.

3 “(b) STANDARD FOR SALES OF EXCESS POWER.—
4 For purposes of this section, the standard referred to in
5 subsection (a) shall provide that an owner or operator of
6 a waste energy recovery project identified on the Registry
7 who generates net excess power shall be eligible to benefit
8 from at least one of the options described in subsection
9 (c) for disposal of the net excess power in accordance with
10 the rate conditions and limitations described in subsection
11 (d).

12 “(c) OPTIONS.—The options referred to in subsection
13 (b) are as follows:

14 “(1) SALE OF NET EXCESS POWER TO UTIL-
15 ITY.—The electric utility shall purchase the net ex-
16 cess power from the owner or operator of the eligible
17 waste-energy recovery project during the operation
18 of the project under a contract entered into for that
19 purpose.

20 “(2) TRANSPORT BY UTILITY FOR DIRECT SALE
21 TO THIRD PARTY.—The electric utility shall transmit
22 the net excess power on behalf of the project owner
23 or operator to up to three separate locations on that
24 utility’s system for direct sale by that owner or oper-
25 ator to third parties at such locations.

1 “(3) TRANSPORT OVER PRIVATE TRANSMISSION
2 LINES.—The State and the electric utility shall per-
3 mit, and shall waive or modify such laws as would
4 otherwise prohibit, the construction and operation of
5 private electric wires constructed, owned and oper-
6 ated by the project owner or operator, to transport
7 such power to up to 3 purchasers within a 3-mile ra-
8 dius of the project, allowing such wires to utilize or
9 cross public rights-of-way, without subjecting the
10 project to regulation as a public utility, and accord-
11 ing such wires the same treatment for safety, zon-
12 ing, land-use and other legal privileges as apply or
13 would apply to the utility’s own wires, except that—

14 “(A) there shall be no grant of any power
15 of eminent domain to take or cross private
16 property for such wires, and

17 “(B) such wires shall be physically seg-
18 regated and not interconnected with any portion
19 of the utility’s system, except on the customer’s
20 side of the utility’s revenue meter and in a
21 manner that precludes any possible export of
22 such electricity onto the utility system, or dis-
23 ruption of such system.

24 “(4) AGREED UPON ALTERNATIVES.—The util-
25 ity and the owner or operator of the project may

1 reach agreement on any alternate arrangement and
2 its associated payments or rates that is mutually
3 satisfactory and in accord with State law.

4 “(d) RATE CONDITIONS AND CRITERIA.—

5 “(1) IN GENERAL.—The options described in
6 paragraphs (1) and (2) in subsection (c) shall be of-
7 fered under purchase and transport rate conditions
8 reflecting the rate components defined under para-
9 graph (2) of this subsection as applicable under the
10 circumstances described in paragraph (3) of this
11 subsection.

12 “(2) RATE COMPONENTS.—For purposes of this
13 section:

14 “(A) PER UNIT DISTRIBUTION COSTS.—

15 The term ‘per unit distribution costs’ means the
16 utility’s depreciated book-value distribution sys-
17 tem costs divided by the previous year’s volume
18 of utility electricity sales or transmission at the
19 distribution level in kilowatt hours.

20 “(B) PER UNIT DISTRIBUTION MARGIN.—

21 The term ‘per unit distribution margin’ means:

22 “(i) In the case of a State regulated
23 electric utility, a per-unit gross pretax
24 profit determined by multiplying the util-
25 ity’s State-approved percentage rate of re-

1 turn for distribution system assets by the
2 per unit distribution costs.

3 “(ii) In the case of an nonregulated
4 utility, a per unit contribution to net reve-
5 nues determined by dividing the amount of
6 any net revenue payment or contribution
7 to the nonregulated utility’s owners or sub-
8 scribers in the prior year by the utility’s
9 gross revenues for the prior year to obtain
10 a percentage (but not less than 10 percent)
11 and multiplying that percentage by the per
12 unit distribution costs.

13 “(C) PER UNIT TRANSMISSION COSTS.—

14 The term ‘per unit transmission costs’ means
15 the total cost of those transmission services
16 purchased or provided by a utility on a per-kilo-
17 watt-hour basis as included in that utility’s re-
18 tail rate.

19 “(3) APPLICABLE RATES.—

20 “(A) RATES APPLICABLE TO SALE OF NET
21 EXCESS POWER.—Sales made by a project
22 owner or operator under the option described in
23 subsection (c) (1) shall be paid for on a per kil-
24 owatt hour basis that shall equal the full
25 undiscounted retail rate paid to the utility for

1 power purchased by such a facility *minus* per
2 unit distribution costs, as applicable to the type
3 of utility purchasing the power. If the net ex-
4 cess power is made available for purchase at
5 voltages that must be transformed to or from
6 voltages exceeding 25 kilovolts to be available
7 for resale by the utility, then the purchase price
8 shall further be reduced by per unit trans-
9 mission costs.

10 “(B) RATES APPLICABLE TO TRANSPORT
11 BY UTILITY FOR DIRECT SALE TO THIRD PAR-
12 TIES.—Transportation by utilities of power on
13 behalf of the owner or operator of a project
14 under the option described in subsection (c)(2)
15 shall incur a transportation rate equal to the
16 per unit distribution costs and per unit dis-
17 tribution margin, as applicable to the type of
18 utility transporting the power. If the net excess
19 power is made available for transportation at
20 voltages that must be transformed to or from
21 voltages exceeding 25 kilovolts to be trans-
22 ported to the designated third-party purchasers,
23 then the transport rate shall further be in-
24 creased by per unit transmission costs. In
25 States with competitive retail markets for elec-

1 tricity, the applicable transportation rate for
2 similar transportation shall be applied in lieu of
3 any rate calculated under this paragraph.

4 “(4) LIMITATIONS.—(A) Any rate established
5 for sale or transportation under this section shall be
6 modified over time with changes in the electric util-
7 ity’s underlying costs or rates, and shall reflect the
8 same time-sensitivity and billing periods as are es-
9 tablished in the retail sales or transportation rates
10 offered by the utility.

11 “(B) No utility shall be required to purchase or
12 transport an amount of net excess power under this
13 section that exceeds the available capacity of the
14 wires, meter, or other equipment of the electric util-
15 ity serving the site unless the owner or operator of
16 the project agrees to pay necessary and reasonable
17 upgrade costs.

18 “(e) PROCEDURAL REQUIREMENTS FOR CONSIDER-
19 ATION AND DETERMINATION.—(1) The consideration re-
20 ferred to in subsection (b) shall be made after public no-
21 tice and hearing. The determination referred to in sub-
22 section (b) shall be—

23 “(A) in writing,

1 “(B) based upon findings included in such de-
2 termination and upon the evidence presented at the
3 hearing, and

4 “(C) available to the public.

5 “(2) The Administrator may intervene as a matter
6 of right in a proceeding conducted under this section and
7 may calculate the energy and emissions likely to be saved
8 by electing to adopt one or more of the options, as well
9 as the costs and benefits to ratepayers and the utility and
10 to advocate for the waste-energy recovery opportunity.

11 “(3) Except as otherwise provided in paragraph (1),
12 and paragraph (2), the procedures for the consideration
13 and determination referred to in subsection (a) shall be
14 those established by the State regulatory authority or the
15 nonregulated electric utility. In the instance that there is
16 more than one project seeking such consideration simulta-
17 neously in connection with the same utility, such pro-
18 ceeding may encompass all such projects, provided that
19 full attention is paid to their individual circumstances and
20 merits, and an individual judgment is reached with respect
21 to each project.

22 “(f) IMPLEMENTATION.—(1) The State regulatory
23 authority (with respect to each electric utility for which
24 it has ratemaking authority) or nonregulated electric util-

1 ity may, to the extent consistent with otherwise applicable
2 State law—

3 “(A) implement the standard determined under
4 this section, or

5 “(B) decline to implement any such standard.

6 “(2) If a State regulatory authority (with respect to
7 each electric utility for which it has ratemaking authority)
8 or nonregulated electric utility declines to implement any
9 standard established by this section, such authority or
10 nonregulated electric utility shall state in writing the rea-
11 sons therefor. Such statement of reasons shall be available
12 to the public, and the Administrator shall include the
13 project in an annual report to Congress concerning lost
14 opportunities for waste-heat recovery, specifically identi-
15 fying the utility and stating the amount of lost energy and
16 emissions savings calculated. If a State regulatory author-
17 ity (with respect to each electric utility for which it has
18 ratemaking authority) or nonregulated electric utility de-
19 clines to implement the standard established by this sec-
20 tion, the project sponsor may submit a new petition under
21 this section with respect to such project at any time after
22 24 months after the date on which the State regulatory
23 authority or nonregulated utility has declined to imple-
24 ment such standard.

1 **“SEC. 376. CLEAN ENERGY APPLICATION CENTERS.**

2 “(a) PURPOSE.—The purpose of this section is to re-
3 name and provide for the continued operation of the
4 United States Department of Energy’s Regional Com-
5 bined Heat and Power (CHP) Application Centers.

6 “(b) FINDINGS.—The Congress finds the Depart-
7 ment of Energy’s Regional Combined Heat and Power
8 (CHP) Application Centers program has produced signifi-
9 cant energy savings and climate change benefits and will
10 continue to do so through the deployment of clean energy
11 technologies such as Combined Heat and Power (CHP),
12 recycled waste energy and biomass energy systems, in the
13 industrial and commercial energy markets.

14 “(c) RENAMING.—The Combined Heat and Power
15 Application Centers at the Department of Energy are
16 hereby be redesignated as Clean Energy Application Cen-
17 ters. Any reference in any law, rule or regulation or publi-
18 cation to the Combined Heat and Power Application Cen-
19 ters shall be treated as a reference to the Clean Energy
20 Application Centers.

21 “(d) RELOCATION.—In order to better coordinate ef-
22 forts with the separate Industrial Assessment Centers and
23 to assure that the energy efficiency and, when applicable,
24 the renewable nature of deploying mature clean energy
25 technology is fully accounted for, the Secretary of Energy
26 shall relocate the administration of the Clean Energy Ap-

1 plication Centers to the Office of Energy Efficiency and
2 Renewable Energy within the Department of Energy. The
3 Office of Electricity Delivery and Energy Reliability shall
4 continue to perform work on the role of such technology
5 in support of the grid and its reliability and security, and
6 shall assist the Clean Energy Application Centers in their
7 work with regard to the grid and with electric utilities.

8 “(e) GRANTS.—

9 “(1) IN GENERAL.—The Secretary of Energy
10 shall make grants to universities, research centers,
11 and other appropriate institutions to assure the con-
12 tinued operations and effectiveness of 8 Regional
13 Clean Energy Application Centers in each of the fol-
14 lowing regions (as designated for such purposes as
15 of the date of the enactment of this section):

16 “(A) Gulf Coast.

17 “(B) Intermountain.

18 “(C) Mid-Atlantic.

19 “(D) Midwest.

20 “(E) Northeast.

21 “(F) Northwest.

22 “(G) Pacific.

23 “(H) Southeast.

24 “(2) ESTABLISHMENT OF GOALS AND COMPLI-
25 ANCE.—In making grants under this section, the

1 Secretary shall ensure that sufficient goals are es-
2 tablished and met by each Center throughout the
3 program duration concerning outreach and tech-
4 nology deployment.

5 “(f) ACTIVITIES.—Each Clean Energy Application
6 Center shall operate a program to encourage deployment
7 of clean energy technologies through education and out-
8 reach to building and industrial professionals, and to other
9 individuals and organizations with an interest in efficient
10 energy use. In addition, the Centers shall provide project
11 specific support to building and industrial professionals
12 through assessments and advisory activities. Funds made
13 available under this section may be used for the following
14 activities:

15 “(1) Developing and distributing informational
16 materials on clean energy technologies, including
17 continuation of the eight existing Web sites.

18 “(2) Developing and conducting target market
19 workshops, seminars, internet programs and other
20 activities to educate end users, regulators, and
21 stakeholders in a manner that leads to the deploy-
22 ment of clean energy technologies.

23 “(3) Providing or coordinating onsite assess-
24 ments for sites and enterprises that may consider
25 deployment of clean energy technology.

1 “(4) Performing market research to identify
2 high profile candidates for clean energy deployment.

3 “(5) Providing consulting support to sites con-
4 sidering deployment of clean energy technologies.

5 “(6) Assisting organizations developing clean
6 energy technologies to overcome barriers to deploy-
7 ment.

8 “(7) Assisting companies and organizations
9 with performance evaluations of any clean energy
10 technology implemented.

11 “(g) DURATION.—A grant awarded under this sec-
12 tion shall be for a period of 5 years. each grant shall be
13 evaluated annually for its continuation based on its activi-
14 ties and results.

15 “(h) AUTHORIZATION.—There is authorized to be ap-
16 propriated for purposes of this section the sum of
17 \$10,000,000 for each of fiscal years 2008, 2009, 2010,
18 2011, and 2012.”.

19 (b) TABLE OF CONTENTS.—The table of contents for
20 such Act is amended by inserting the following after the
21 items relating to part D of title III:

“PART E—INDUSTRIAL ENERGY EFFICIENCY

“Sec. 371. Survey of waste industrial energy recovery and potential use.

“Sec. 372. Definitions.

“Sec. 373. Survey and registry.

“Sec. 374. Waste Energy Recovery Incentive Grant Program.

“Sec. 375. Additional incentives for recovery, utilization and prevention of in-
 dustrial waste energy.

“Sec. 376. Clean Energy Application Centers.”.

1 **PART 6—ENERGY EFFICIENCY OF PUBLIC**
2 **INSTITUTIONS**

3 **SEC. 9071. SHORT TITLE.**

4 This part may be cited as the “Sustainable Energy
5 Institutional Infrastructure Act of 2007”.

6 **SEC. 9072. FINDINGS.**

7 The Congress finds the following:

8 (1) Many institutional entities own and operate,
9 or are served by, district energy systems.

10 (2) A variety of renewable energy resources
11 could be tapped by governmental and institutional
12 energy systems to meet energy requirements.

13 (3) Use of these renewable energy resources to
14 meet energy requirements will reduce reliance on
15 fossil fuels and the associated emissions of air pollu-
16 tion and carbon dioxide.

17 (4) CHP is a highly efficient and environ-
18 mentally beneficial means to generate electric energy
19 and heat, and offers total efficiency much greater
20 than conventional separate systems, where electric
21 energy is generated at and transmitted long dis-
22 tances from a centrally located generation facility,
23 and onsite heating and cooling equipment is used to
24 meet nonelectric energy requirements.

25 (5) Heat recovered in a CHP generation system
26 can be used for space heating, domestic hot water,

1 or process steam requirements, or can be converted
2 to cooling energy to meet air conditioning require-
3 ments.

4 (6) The increased efficiency of CHP results in
5 reduction in emissions of air pollution and carbon di-
6 oxide.

7 (7) District energy systems represent a key op-
8 portunity for expanding implementation of CHP be-
9 cause district energy systems provide a means of de-
10 livering thermal energy from CHP to a substantial
11 base of end users.

12 (8) District energy systems help cut peak power
13 demand and reduce power transmission and distribu-
14 tion system constraints by meeting air conditioning
15 demand through delivery of chilled water produced
16 with CHP-generated heat or other energy sources,
17 shifting power demand through thermal storage,
18 and, with CHP, generating power near load centers.

19 (9) Evaluation and implementation of sustain-
20 able energy infrastructure is a complex undertaking
21 involving a variety of technical, economic, legal, and
22 institutional issues and barriers, and technical as-
23 sistance is often required to successfully navigate
24 these barriers.

1 (10) The major constraint to significant expansion of sustainable energy infrastructure by institutional entities is a lack of capital funding for implementation.

5 **SEC. 9073. DEFINITIONS.**

6 For purposes of this part—

7 (1) the term “CHP” means combined heat and power, or the generation of electric energy and heat in a single, integrated system;

10 (2) the term “district energy systems” means systems providing thermal energy to buildings and other energy consumers from one or more plants to individual buildings to provide space heating, air conditioning, domestic hot water, industrial process energy, and other end uses;

16 (3) the term “institutional entities” means local governments, public school districts, municipal utilities, State governments, Federal agencies, and other entities established by local, State, or Federal agencies to meet public purposes, and public or private colleges, universities, airports, and hospitals;

22 (4) the term “renewable thermal energy sources” means non-fossil-fuel energy sources, including biomass, geothermal, solar, natural sources of cooling such as cold lake or ocean water, and

1 other sources that can provide heating or cooling en-
2 ergy;

3 (5) the term “sustainable energy infrastruc-
4 ture” means facilities for production of energy from
5 CHP or renewable thermal energy sources and dis-
6 tribution of thermal energy to users; and

7 (6) the term “thermal energy” means heating
8 or cooling energy in the form of hot water or steam
9 (heating energy) or chilled water (cooling energy).

10 **SEC. 9074. TECHNICAL ASSISTANCE PROGRAM.**

11 (a) ESTABLISHMENT.—The Secretary of Energy
12 shall, with funds appropriated for this purpose, implement
13 a program of information dissemination and technical as-
14 sistance to institutional entities to assist them in identi-
15 fying, evaluating, designing, and implementing sustainable
16 energy infrastructure.

17 (b) INFORMATION DISSEMINATION.—The Secretary
18 shall develop and disseminate information and assessment
19 tools addressing—

20 (1) identification of opportunities for sustain-
21 able energy infrastructure;

22 (2) technical and economic characteristics of
23 sustainable energy infrastructure;

24 (3) utility interconnection, and negotiation of
25 power and fuel contracts;

- 1 (4) financing alternatives;
- 2 (5) permitting and siting issues;
- 3 (6) case studies of successful sustainable energy
- 4 infrastructure systems; and
- 5 (7) computer software for assessment, design,
- 6 and operation and maintenance of sustainable en-
- 7 ergy infrastructure systems.

8 (c) ELIGIBLE COSTS.—Upon application by an insti-
9 tutional entity, the Secretary may make grants to such
10 applicant to fund—

11 (1) 75 percent of the cost of feasibility studies
12 to assess the potential for implementation or im-
13 provement of sustainable energy infrastructure;

14 (2) 60 percent of the cost of guidance on over-
15 coming barriers to project implementation, including
16 financial, contracting, siting, and permitting bar-
17 riers; and

18 (3) 45 percent of the cost of detailed engineer-
19 ing and design of sustainable energy infrastructure.

20 (d) AUTHORIZATION OF APPROPRIATIONS.—There
21 are authorized to be appropriated to carry out this section
22 \$15,000,000 for fiscal year 2008, \$15,000,000 for fiscal
23 year 2009, and \$15,000,000 for fiscal year 2010.

1 **SEC. 9075. REVOLVING FUND.**

2 (a) ESTABLISHMENT.—The Secretary of Energy
3 shall, with funds appropriated for this purpose, create a
4 Sustainable Institutions Revolving Fund for the purpose
5 of establishing and operating a Sustainable Institutions
6 Revolving Fund (in this section referred to as the
7 “SIRF”) for the purpose of providing loans for the con-
8 struction or improvement of sustainable energy infrastruc-
9 ture to serve institutional entities.

10 (b) ELIGIBLE COSTS.—A loan provided from the
11 SIRF shall be for no more than 70 percent of the total
12 capital costs of a project, and shall not exceed
13 \$15,000,000. Such loans shall be for constructing sustain-
14 able energy infrastructure, including—

- 15 (1) plant facilities used for producing thermal
16 energy, electricity, or both;
17 (2) facilities for storing thermal energy;
18 (3) facilities for distribution of thermal energy;
19 and
20 (4) costs for converting buildings to use ther-
21 mal energy from sustainable energy sources.

22 (c) QUALIFICATIONS.—Loans from the SIRF may be
23 made to institutional entities for projects meeting the
24 qualifications and conditions established by the Secretary,
25 including the following minimum qualifications:

1 (1) The project shall be technically and eco-
2 nomicallly feasible as determined by a detailed feasi-
3 bility analysis performed or corroborated by an inde-
4 pendent consultant.

5 (2) The borrower shall demonstrate that ade-
6 quate and comparable financing was not found to be
7 reasonably available from other sources, and that
8 the project is economically more feasible with the
9 availability of the SIRF loan.

10 (3) The borrower shall obtain commitments for
11 the remaining capital required to implement the
12 project, contingent on approval of the SIRF loan.

13 (4) The borrower shall provide to the Secretary
14 reasonable assurance that all laborers and mechanics
15 employed by contractors or subcontractors in the
16 performance of construction work financed in whole
17 or in part with a loan provided under this section
18 will be paid wages at rates not less than those pre-
19 vailing on similar work in the locality as determined
20 by the Secretary of Labor in accordance with sub-
21 chapter IV of chapter 31 of title 40, United States
22 Code (commonly referred to as the Davis-Bacon
23 Act).

24 (d) FINANCING TERMS.—(1) Interest on a loan under
25 this section may be a fixed rate or floating rate, and shall

1 be equal to the Federal cost of funds consistent with the
2 loan type and term, minus 1.5 percent.

3 (2) Interest shall accrue from the date of the loan,
4 but the first payment of interest shall be deferred, if de-
5 sired by the borrower, for a period ending not later than
6 3 years after the initial date of operation of the system.

7 (3) Interest attributable to the period of deferred
8 payment shall be amortized over the remainder of the loan
9 term.

10 (4) Principal shall be repaid on a schedule established
11 at the time the loan is made. Such payments shall begin
12 not later than 3 years after the initial date of operation
13 of the system.

14 (5) Loans made from the SIRF shall be repayable
15 over a period ending not more than 20 years after the
16 date the loan is made.

17 (6) Loans shall be prepayable at any time without
18 penalty.

19 (7) SIRF loans shall be subordinate to other loans
20 for the project.

21 (e) FUNDING CYCLES.—Applications for loans from
22 the SIRF shall be received on a periodic basis at least
23 semiannually.

24 (f) APPLICATION OF REPAYMENTS FOR DEFICIT RE-
25 DUCATION.—Loans from the SIRF shall be made, with

1 funds available for this purpose, during the 10 years start-
2 ing from the date that the first loan from the fund is
3 made. Until this 10-year period ends, funds repaid by bor-
4 rowers shall be deposited in the SIRF to be made available
5 for additional loans. Once loans from the SIRF are no
6 longer being made, repayments shall go directly into the
7 United States Treasury.

8 (g) PRIORITIES.—In evaluating projects for funding,
9 priority shall be given to projects which—

10 (1) maximize energy efficiency;

11 (2) minimize environmental impacts, including
12 from regulated air pollutants, greenhouse gas emis-
13 sions, and the use of refrigerants known to cause
14 ozone depletion;

15 (3) use renewable energy resources;

16 (4) maximize oil displacement; and

17 (5) benefit economically-depressed areas.

18 (h) REGULATIONS.—Not later than one year after
19 the date of enactment of this Act, the Secretary of Energy
20 shall develop a plan and adopt rules and procedures for
21 establishing and operating the SIRF.

22 (i) PROGRAM REVIEW.—Every two years the Sec-
23 retary shall report to the Congress on the status and
24 progress of the SIRF.

1 (j) AUTHORIZATION OF APPROPRIATIONS.—There
2 are authorized to be appropriated to carry out this section
3 \$250,000,000 for fiscal year 2008 and \$500,000,000 for
4 each of the fiscal years 2009 through 2012.

5 **SEC. 9076. REAUTHORIZATION OF STATE ENERGY PRO-**
6 **GRAMS.**

7 Section 365(f) of the Energy Policy and Conservation
8 Act (42 U.S.C. 6325(f)) is amended by striking
9 “\$100,000,000 for each of the fiscal years 2006 and 2007
10 and \$125,000,000 for fiscal year 2008” and inserting
11 “\$125,000,000 for each of the fiscal years 2007, 2008,
12 2009, 2010, 2011, and 2012”.

13 **SEC. 9077. STUDY ON INDOOR ENVIRONMENTAL QUALITY**
14 **IN SCHOOLS.**

15 (a) IN GENERAL.—The Administrator of the Envi-
16 ronmental Protection Agency shall enter into an arrange-
17 ment with the Secretary of Education and the Secretary
18 of Energy to conduct a detailed study of how sustainable
19 building features such as energy efficiency affect multiple
20 perceived indoor environmental quality stressors on stu-
21 dents in K–12 schools.

22 (b) CONTENTS.—The study shall—

23 (1) investigate synergistic effects of multiple
24 perceived stressors, including thermal discomfort,
25 visual discomfort, acoustical dissatisfaction such as

1 noise and loss of speech privacy, and air quality dis-
 2 satisfaction;

3 (2) identify how sustainable building features,
 4 such as energy efficiency, are influencing these
 5 human outcomes singly and in concert; and

6 (3) ensure that the impacts of the indoor envi-
 7 ronmental quality are evaluated as a whole.

8 (c) AUTHORIZATION OF APPROPRIATIONS.—There
 9 are authorized to be appropriated for carrying out this sec-
 10 tion \$200,000 for each of the fiscal years 2008 through
 11 2012.

12 **PART 7—ENERGY SAVINGS PERFORMANCE**

13 **CONTRACTING**

14 **SEC. 9081. DEFINITION OF ENERGY SAVINGS.**

15 Section 804(2) of the National Energy Conservation
 16 Policy Act (42 U.S.C. 8287c(2)) is amended—

17 (1) by redesignating subparagraphs (A), (B),
 18 and (C) as clauses (i), (ii), and (iii), respectively,
 19 and indenting appropriately;

20 (2) by striking “means a reduction” and insert-
 21 ing “means—

22 “(A) a reduction”;

23 (3) by striking the period at the end and insert-
 24 ing a semicolon; and

25 (4) by adding at the end the following:

1 “(B) the increased efficient use of an exist-
2 ing energy source by cogeneration or heat re-
3 covery, and installation of renewable energy sys-
4 tems;

5 “(C) if otherwise authorized by Federal or
6 State law (including regulations), the sale or
7 transfer of electrical or thermal energy gen-
8 erated onsite but in excess of Federal needs, to
9 utilities or non-Federal energy users; and

10 “(D) the increased efficient use of existing
11 water sources in interior or exterior applica-
12 tions.”.

13 **SEC. 9082. FINANCING FLEXIBILITY.**

14 Section 801(a)(2) of the National Energy Conserva-
15 tion Policy Act (42 U.S.C. 8287(a)(2)) is amended by add-
16 ing at the end the following:

17 “(E) SEPARATE CONTRACTS.—In carrying out a con-
18 tract under this title, a Federal agency may—

19 “(i) enter into a separate contract for energy
20 services and conservation measures under the con-
21 tract; and

22 “(ii) provide all or part of the financing nec-
23 essary to carry out the contract.”.

1 **SEC. 9083. AUTHORITY TO ENTER INTO CONTRACTS; RE-**
2 **PORTS.**

3 (a) AUTHORITY TO ENTER INTO CONTRACTS.—Sec-
4 tion 801(a)(2)(D) of the National Energy Conservation
5 Policy Act (42 U.S.C. 8287(a)(2)(D)) is amended—

6 (1) in clause (ii), by inserting “and” after the
7 semicolon at the end;

8 (2) by striking clause (iii); and

9 (3) by redesignating clause (iv) as clause (iii).

10 (b) REPORTS.—Section 548(a)(2) of the National
11 Energy Conservation Policy Act (42 U.S.C. 8258(a)(2))
12 is amended by inserting “and any termination penalty ex-
13 posure” after “the energy and cost savings that have re-
14 sulted from such contracts”.

15 (c) CONFORMING AMENDMENT.—Section 2913 of
16 title 10, United States Code is amended by striking sub-
17 section (e).

18 **SEC. 9084. PERMANENT REAUTHORIZATION.**

19 Section 801 of the National Energy Conservation
20 Policy Act (42 U.S.C. 8287) is amended by striking sub-
21 section (c).

22 **SEC. 9085. TRAINING FEDERAL CONTRACTING OFFICERS**
23 **TO NEGOTIATE ENERGY EFFICIENCY CON-**
24 **TRACTS.**

25 (a) PROGRAM.—The Secretary of Energy shall create
26 and administer in the Federal Energy Management Pro-

1 gram a training program to educate Federal contract ne-
2 gotiation and contract management personnel so that such
3 contract officers are prepared to—

4 (1) negotiate energy savings performance con-
5 tracts;

6 (2) conclude effective and timely contracts for
7 energy efficiency services with all companies offering
8 energy efficiency services; and

9 (3) review Federal contracts for all products
10 and services for their potential energy efficiency op-
11 portunities and implications.

12 (b) SCHEDULE.—The Federal Energy Management
13 Program shall plan, staff, announce, and begin such train-
14 ing not later than one year after the date of enactment
15 of this Act.

16 (c) PERSONNEL TO BE TRAINED.—Personnel appro-
17 priate to receive such training shall be selected by and sent
18 for such training from—

19 (1) the Department of Defense;

20 (2) the Department of Veterans Affairs;

21 (3) the Department of Energy;

22 (4) the General Services Administration;

23 (5) the Department of Housing and Urban De-
24 velopment;

25 (6) the United States Postal Service; and

1 (7) all other Federal agencies and departments
2 that enter contracts for buildings, building services,
3 electricity and electricity services, natural gas and
4 natural gas services, heating and air conditioning
5 services, building fuel purchases, and other types of
6 procurement or service contracts determined by Fed-
7 eral Energy Management Program to offer the po-
8 tential for energy savings and greenhouse gas emis-
9 sion reductions if negotiated with such goals in
10 mind.

11 (d) TRAINERS.—Such training may be conducted by
12 attorneys or contract officers with experience in negoti-
13 ating and managing such contracts from any agency, and
14 the Department of Energy shall reimburse their related
15 salaries and expenses from amounts appropriated for car-
16 rying out this section to the extent they are not already
17 employees of the Department of Energy. Such training
18 may also be provided by private experts hired by the De-
19 partment of Energy for the purposes of this section, except
20 that the Department may not hire experts who are simul-
21 taneously employed by any company under contract to
22 provide such energy efficiency services to the Federal Gov-
23 ernment.

24 (e) AUTHORIZATION OF APPROPRIATIONS.—There
25 are authorized to be appropriated to the Secretary of En-

1 ergy for carrying out this section \$750,000 for each of
2 fiscal years 2008 through 2012.

3 **SEC. 9086. PROMOTING LONG-TERM ENERGY SAVINGS PER-**
4 **FORMANCE CONTRACTS AND VERIFYING SAV-**
5 **INGS.**

6 Section 801(a)(2) of the National Energy Conserva-
7 tion Policy Act (42 U.S.C. 8287(a)(2)) is amended—

8 (1) in subparagraph (D), by inserting “begin-
9 ning on the date of the delivery order” after “25
10 years”; and

11 (2) by adding at the end the following:

12 “(F) PROMOTION OF CONTRACTS.—In carrying out
13 this section, a Federal agency shall not—

14 “(i) establish a Federal agency policy that lim-
15 its the maximum contract term under subparagraph
16 (D) to a period shorter than 25 years; or

17 “(ii) limit the total amount of obligations under
18 energy savings performance contracts or other pri-
19 vate financing of energy savings measures.

20 “(G) MEASUREMENT AND VERIFICATION REQUIRE-
21 MENTS FOR PRIVATE FINANCING.—

22 “(i) IN GENERAL.—The evaluations and savings
23 measurement and verification required under para-
24 graphs (1) and (3) of section 543(f) shall be used
25 by a Federal agency to meet the requirements for—

1 “(I) in the case of energy savings perform-
 2 ance contracts, the need for energy audits, cal-
 3 culation of energy savings, and any other eval-
 4 uation of costs and savings needed to imple-
 5 ment the guarantee of savings under this sec-
 6 tion; and

7 “(II) in the case of utility energy service
 8 contracts, needs that are similar to the pur-
 9 poses described in subclause (I).

10 “(ii) MODIFICATION OF EXISTING CON-
 11 TRACTS.—Not later than 180 days after the date of
 12 enactment of this subparagraph, each Federal agen-
 13 cy shall, to the maximum extent practicable, modify
 14 any indefinite delivery and indefinite quantity energy
 15 savings performance contracts, and other indefinite
 16 delivery and indefinite quantity contracts using pri-
 17 vate financing, to conform to the amendments made
 18 by subtitle G of title I of the Energy Efficiency Im-
 19 provement Act of 2007.”.

20 **PART 8—ADVISORY COMMITTEE ON ENERGY**
 21 **EFFICIENCY FINANCING**

22 **SEC. 9089. ADVISORY COMMITTEE.**

23 (a) ESTABLISHMENT.—The Assistant Secretary of
 24 Energy for Energy Efficiency and Renewable Energy shall
 25 establish an advisory committee to provide advice and rec-

1 ommendations to the Department of Energy on energy ef-
2 ficiency finance and investment issues, options, ideas, and
3 trends, and to assist the energy community in identifying
4 practical ways of lowering costs and increasing invest-
5 ments in energy efficiency technologies.

6 (b) MEMBERSHIP.—The advisory committee estab-
7 lished under this section shall have a balanced membership
8 that shall include members representing the following
9 communities:

10 (1) Providers of seed capital.

11 (2) Venture capitalists.

12 (3) Private equity sources.

13 (4) Investment banking corporate finance.

14 (5) Investment banking mergers and acquisi-
15 tions.

16 (6) Equity capital markets.

17 (7) Debt capital markets.

18 (8) Research analysts.

19 (9) Sales and trading.

20 (10) Commercial lenders.

21 (11) Residential lenders.

22 (c) AUTHORIZATION OF APPROPRIATIONS.—There
23 are authorized to be appropriated such sums as may be
24 necessary to the Secretary of Energy for carrying out this
25 section.

1 **PART 9—ENERGY EFFICIENCY BLOCK GRANT**
2 **PROGRAM**

3 **SEC. 9091. DEFINITIONS.**

4 For purposes of this part—

5 (1) the term “eligible entity” means a State or
6 an eligible unit of local government within a State;

7 (2) the term “eligible unit of local government”
8 means—

9 (A) a city with a population of at least
10 50,000; and

11 (B) a county with a population of at least
12 200,000;

13 (3) the term “Secretary” means the Secretary
14 of Energy; and

15 (4) the term “State” means one of the 50
16 States, the District of Columbia, the Commonwealth
17 of Puerto Rico, Guam, American Samoa, the United
18 States Virgin Islands, the Commonwealth of the
19 Northern Mariana Islands, and any other common-
20 wealth, territory, or possession of the United States.

21 **SEC. 9092. ESTABLISHMENT OF PROGRAM.**

22 The Secretary shall establish an Energy Efficiency
23 Block Grant Program to make block grants to eligible en-
24 tities as provided in this part.

1 **SEC. 9093. ALLOCATIONS.**

2 (a) IN GENERAL.—Of the funds appropriated for
3 making grants under this part for each fiscal year, the
4 Secretary shall allocate 70 percent to be provided to eligi-
5 ble units of local government as provided in subsection (b)
6 and 30 percent to be provided to States as provided in
7 subsection (c).

8 (b) ELIGIBLE UNITS OF LOCAL GOVERNMENT.—The
9 Secretary shall provide grants to eligible units of local gov-
10 ernment according to a formula giving equal weight to—

11 (1) population, according to the most recent
12 available Census data; and

13 (2) daytime population, or another similar fac-
14 tor such as square footage of commercial, office, and
15 industrial space, as determined by the Secretary.

16 (c) STATES.—The Secretary shall provide grants to
17 States according to a formula based on population, accord-
18 ing to the most recent available Census data.

19 (d) PUBLICATION OF ALLOCATION FORMULAS.—Not
20 later than 90 days before the beginning of any fiscal year
21 in which grants are to be made under this part, the Secretary
22 shall publish in the Federal Register the formulas for allo-
23 cation described in subsection (b)(1) and (b)(2).

24 **SEC. 9094. ELIGIBLE ACTIVITIES.**

25 Funds provided through a grant under this part may
26 be used for the following activities:

1 (1) Development and implementation of an En-
2 ergy Efficiency Strategy under section 9095.

3 (2) Retaining technical consultant services to
4 assist an eligible entity in the development of such
5 Strategy, including—

6 (A) formulation of energy efficiency, en-
7 ergy conservation, and energy usage goals;

8 (B) identification of strategies to meet
9 such goals through efforts to increase energy ef-
10 ficiency and reduce energy consumption;

11 (C) identification of strategies to encour-
12 age behavioral changes among the populace
13 that will help achieve such goals;

14 (D) development of methods to measure
15 progress in achieving such goals;

16 (E) development and preparation of annual
17 reports to the citizenry of the eligible entity's
18 energy efficiency strategies and goals, and
19 progress in achieving them; and

20 (F) other services to assist in the imple-
21 mentation of the Energy Efficiency Strategy.

22 (3) Conducting energy audits.

23 (4) Development and implementation of weath-
24 erization programs.

1 (5) Creation of financial incentive programs for
2 energy efficiency retrofits, including zero-interest or
3 low-interest revolving loan funds.

4 (6) Grants to nonprofit organizations and gov-
5 ernmental agencies for energy retrofits.

6 (7) Development and implementation of energy
7 efficiency programs and technologies for buildings
8 and facilities of nonprofit organizations and govern-
9 mental agencies.

10 (8) Development and implementation of build-
11 ing and home energy conservation programs, includ-
12 ing—

13 (A) design and operation of the programs;

14 (B) identifying the most effective methods
15 for achieving maximum participation and effi-
16 ciency rates;

17 (C) public education;

18 (D) measurement protocols; and

19 (E) identification of energy efficient tech-
20 nologies.

21 (9) Development and implementation of energy
22 conservation programs, including—

23 (A) use of flex time by employers;

24 (B) satellite work centers; and

1 (C) other measures that have the effect of
2 increasing energy efficiency and decreasing en-
3 ergy consumption.

4 (10) Development and implementation of build-
5 ing codes and inspection services for public, commer-
6 cial, industrial, and single and multifamily residen-
7 tial buildings to promote energy efficiency.

8 (11) Application and implementation of alter-
9 native energy and energy distribution technologies
10 that significantly increase energy efficiency and pro-
11 mote distributed resources and district heating and
12 cooling systems.

13 (12) Development and promotion of zoning
14 guidelines or requirements that result in increased
15 energy efficiency, efficient development, active living
16 land use planning, and infrastructure such as bike
17 lanes and pathways, and pedestrian walkways.

18 (13) Promotion of greater participation and ef-
19 ficiency rates for material conservation programs, in-
20 cluding source reduction, recycling, and recycled
21 content procurement programs that lead to increases
22 in energy efficiency.

23 (14) Establishment of a State, county, or city
24 office to assist in the development and implementa-
25 tion of the Energy Efficiency Strategy.

1 **SEC. 9095. REQUIREMENTS.**

2 (a) REQUIREMENTS FOR ELIGIBLE UNITS OF LOCAL
3 GOVERNMENT.—

4 (1) PROPOSED STRATEGY.—Not later than 1
5 year after being awarded a grant under this part, an
6 eligible unit of local government shall submit to the
7 Secretary a proposed Energy Efficiency Strategy
8 which establishes goals for increased energy effi-
9 ciency in the jurisdiction of the eligible units of local
10 government. The Strategy shall include plans for the
11 use of funds received under the grant to assist the
12 eligible unit of local government in the achievement
13 of such goals, consistent with section 9094. In devel-
14 oping such a Strategy, an eligible unit of local gov-
15 ernment shall take into account any plans for the
16 use of funds by adjoining eligible units of local gov-
17 ernments funded under this part.

18 (2) APPROVAL.—The Secretary shall approve or
19 disapprove a proposed Strategy submitted under
20 paragraph (1) not later than 90 days after receiving
21 it. If the Secretary disapproves a proposed Strategy,
22 the Secretary shall provide to the eligible unit of
23 local government the reasons for such disapproval.
24 The eligible unit of local government may revise and
25 resubmit the Strategy, as many times as required,
26 until approval is granted.

1 (3) FUNDING FOR PREPARATION OF STRAT-
2 EGY.—

3 (A) IN GENERAL.—Until the Secretary has
4 approved a proposed Energy Efficiency Strat-
5 egy under paragraph (2), the Secretary shall
6 only disburse to an eligible unit of local govern-
7 ment \$200,000 or 20 percent of the grant,
8 whichever is greater, which may be used only
9 for preparation of the Strategy.

10 (B) REMAINDER OF FUNDS.—The remain-
11 der of an eligible unit of local government's
12 grant funds awarded but not disbursed under
13 subparagraph (A) shall remain available and
14 shall be disbursed by the Secretary upon ap-
15 proval of the Strategy.

16 (4) LIMITATIONS ON USE OF FUNDS.—Of the
17 amounts provided through a grant under this part,
18 an eligible unit of local government may use—

19 (A) not more than 10 percent, or \$75,000,
20 whichever is greater, for administrative ex-
21 penses, not including expenses needed to meet
22 reporting requirements under this part;

23 (B) not more than 20 percent, or
24 \$250,000, whichever is greater, for the estab-
25 lishment of revolving loan funds; and

1 (C) not more than 20 percent, or
2 \$250,000, whichever is greater, for subgranting
3 to nongovernmental organizations for the pur-
4 pose of assisting in the implementation of the
5 Energy Efficiency Strategy.

6 (5) ANNUAL REPORT.—Not later than 2 years
7 after receipt of the first disbursement of funds from
8 a grant awarded under this part, and annually
9 thereafter, an eligible unit of local government shall
10 submit a report to the Secretary on the status of the
11 Strategy’s development and implementation, and,
12 where practicable, a best available assessment of en-
13 ergy efficiency gains within the jurisdiction of the el-
14 igible unit of local government.

15 (b) REQUIREMENTS FOR STATES.—

16 (1) ALLOCATION OF GRANT FUNDS.—A State
17 receiving a grant under this part shall use at least
18 70 percent of the funds received to provide sub-
19 grants to units of local government in the State that
20 are not eligible units of local government. The State
21 shall make such subgrant awards not later than 6
22 months after approval of the State’s Strategy under
23 paragraph (3).

24 (2) PROPOSED STRATEGY.—Not later than 120
25 days the date of enactment of this Act, each State

1 shall submit to the Secretary a proposed Energy Ef-
2 ficiency Strategy which establishes a process for
3 making subgrants described in paragraph (1), and
4 establishes goals for increased energy efficiency in
5 the jurisdiction of the State. The Strategy shall in-
6 clude plans for the use of funds received under a
7 grant under this part to assist the State in the
8 achievement of such goals, consistent with section
9 9094.

10 (3) APPROVAL.—The Secretary shall approve or
11 disapprove a proposed Strategy submitted under
12 paragraph (2) not later than 90 days after receiving
13 it. If the Secretary disapproves a proposed Strategy,
14 the Secretary shall provide to the State the reasons
15 for such disapproval. The State may revise and re-
16 submit the Strategy, as many times as required,
17 until approval is granted.

18 (4) FUNDING FOR PREPARATION OF STRAT-
19 EGY.—

20 (A) IN GENERAL.—Until the Secretary has
21 approved a proposed Energy Efficiency Strat-
22 egy under paragraph (2), the Secretary shall
23 only disburse to a State \$200,000 or 20 percent
24 of the grant, whichever is greater, which may
25 be used only for preparation of the Strategy.

1 (B) REMAINDER OF FUNDS.—The remain-
2 der of a State’s grant funds awarded but not
3 disbursed under subparagraph (A) shall remain
4 available and shall be disbursed by the Sec-
5 retary upon approval of the Strategy.

6 (5) LIMITATIONS ON USE OF FUNDS.—Of the
7 amounts provided through a grant under this part,
8 a State may use not more than 10 percent for ad-
9 ministrative expenses.

10 (6) ANNUAL REPORTS.—A State shall annually
11 report to the Secretary on the development and im-
12 plementation of its Strategy. Each such report shall
13 include—

14 (A) a status report on the State’s subgrant
15 program described in paragraph (1);

16 (B) a best available assessment of energy
17 efficiency gains achieved through the State’s
18 Strategy; and

19 (C) specific energy efficiency and energy
20 conservation goals for future years.

21 (c) STATE AND LOCAL ADVISORY COMMITTEE.—

22 (1) STATE AND LOCAL ADVISORY COM-
23 MITTEE.—The Secretary shall establish a State and
24 Local Advisory Committee to provide advice regard-

1 ing the administration, direction, and evaluation of
2 the program under this part.

3 **SEC. 9096. REVIEW AND EVALUATION.**

4 The Secretary may review and evaluate the perform-
5 ance of grant recipients, including by performing audits,
6 and may deny funding to such grant recipients for failure
7 to properly adhere to—

8 (1) the Secretary’s guidelines and regulations
9 relating to the program under this part, including
10 the misuse or misappropriation of funds; or

11 (2) the grant recipient’s Strategy.

12 **SEC. 9097. TECHNICAL ASSISTANCE AND EDUCATION PRO-**
13 **GRAM.**

14 (a) ESTABLISHMENT.—The Secretary shall establish
15 and carry out a technical assistance and education pro-
16 gram to provide—

17 (1) technical assistance to State and local gov-
18 ernments;

19 (2) public education programs;

20 (3) demonstration of innovative energy effi-
21 ciency systems and practices; and

22 (4) identification of effective measurement
23 methodologies and methods for changing or influ-
24 encing public participation in, and awareness of, en-
25 ergy efficiency programs.

1 (b) ELIGIBLE RECIPIENTS.—Eligible recipients of as-
2 sistance under this section shall include State and local
3 governments, State and local government associations,
4 public and private nonprofit organizations, and colleges
5 and universities.

6 (c) AUTHORIZATION OF APPROPRIATIONS.—There
7 are authorized to be appropriated to the Secretary for car-
8 rying out this section \$150,000,000 for each of the fiscal
9 years 2008 through 2012.

10 **SEC. 9098. AUTHORIZATION OF APPROPRIATIONS.**

11 (a) GRANTS.—There are authorized to be appro-
12 priated to the Secretary for grants under this part,
13 \$2,000,000,000 for each of fiscal years 2008 through
14 2012.

15 (b) ADMINISTRATION.—There are authorized to be
16 appropriated to the Secretary for administrative expenses
17 of the program established under this part—

- 18 (1) \$20,000,000 for fiscal year 2008;
19 (2) \$20,000,000 for fiscal year 2009;
20 (3) \$25,000,000 for fiscal year 2010;
21 (4) \$25,000,000 for fiscal year 2011; and
22 (5) \$30,000,000 for fiscal year 2012.

1 **Subtitle B—Smart Grid Facilitation**

2 **SEC. 9101. SHORT TITLE.**

3 This subtitle may be cited as the “Smart Grid Facili-
4 tation Act of 2007”.

5 **PART 1—SMART GRID**

6 **SEC. 9111. STATEMENT OF POLICY ON MODERNIZATION OF** 7 **ELECTRICITY GRID.**

8 (a) SMART GRID CHARACTERISTICS.—It is the policy
9 of the United States to support the modernization of the
10 Nation’s electricity transmission and distribution system
11 to incorporate digital information and controls technology
12 and to share real-time pricing information with electricity
13 customers to achieve each of the following, which together
14 characterize a smart grid:

15 (1) Increased reliability, security and efficiency
16 of the electric grid.

17 (2) Dynamic optimization of grid operations
18 and resources, with full cyber-security.

19 (3) Deployment and integration of distributed
20 resources and generation.

21 (4) Development and incorporation of demand
22 response demand-side resources, and energy effi-
23 ciency resources.

1 (5) Deployment of “smart” technologies for me-
2 tering, communications concerning grid operations
3 and status, and distribution automation.

4 (6) Integration of “smart” appliances and con-
5 sumer devices.

6 (7) Deployment and integration of renewable
7 energy resources, both to the grid and on the cus-
8 tomer side of the electric meter.

9 (8) Deployment and integration of advanced
10 electricity storage and peak-sharing technologies, in-
11 cluding plug-in electric and hybrid electric vehicles,
12 and thermal-storage air conditioning.

13 (9) Provision to consumers of new information
14 and control options.

15 (10) Continual environmental improvement in
16 electricity production and distribution.

17 (11) Enhanced capacity and efficiency of elec-
18 tricity networks, reduction of line losses, and main-
19 tenance of power quality.

20 (b) SUPPORT.—The Secretary of Energy and the
21 Federal Energy Regulatory Commission and other Federal
22 agencies as appropriate shall undertake programs to sup-
23 port the development and demonstration of Smart Grid
24 technologies and standards to maximize the achievement
25 of these goals.

1 (c) BARRIERS.—It is further the policy of the United
2 States that no State, State agency, or local government
3 or instrumentality thereof should prohibit, or erect unrea-
4 sonable barriers to, the deployment of smart grid tech-
5 nologies on an electric utility’s distribution facilities, or
6 unreasonably limit the services that may be provided using
7 such technologies.

8 (d) INFORMATION.—It is further the policy of the
9 United States that electricity purchasers are entitled to
10 receive information about the varying value of electricity
11 at different times and places, and that States shall not
12 prohibit nor erect unreasonable barriers to the provision
13 of such information flows to end users.

14 **SEC. 9112. GRID MODERNIZATION COMMISSION.**

15 (a) ESTABLISHMENT AND MISSION.—

16 (1) ESTABLISHMENT.—The President shall es-
17 tablish a Grid Modernization Commission composed
18 of 9 members. Three members of the Commission
19 shall be appointed by the President, and one each
20 shall be appointed by the Speaker and Minority
21 Leader of the United States House of Representa-
22 tives and by the Majority Leader and Minority
23 Leader of the United States Senate. Two members
24 shall be appointed by the President from among per-
25 sons recommended by an association representing

1 State utility regulatory commissioners. The Presi-
2 dent shall designate one Commissioner to serve as
3 Chairperson.

4 (2) MISSION.—The mission of the Grid Mod-
5 ernization Commission shall be to facilitate the
6 adoption of Smart Grid standards, technologies, and
7 practices across the Nation’s electricity grid to the
8 point of general adoption and ongoing market sup-
9 port in the United States electric sector. The Com-
10 mission shall be responsible for monitoring develop-
11 ments, encouraging progress toward common stand-
12 ards and protocols, identifying barriers and pro-
13 posing solutions, coordinating with all Federal de-
14 partments and agencies, and coordinating ap-
15 proaches on smart grid implementation with States
16 and local governmental authorities.

17 (b) MEMBERSHIP.—The members appointed to the
18 Commission shall, collectively, have qualifications in elec-
19 tric utility operations and infrastructure, digital informa-
20 tion and control technologies, security, market develop-
21 ment, finance and utility regulation, energy efficiency, de-
22 mand response, renewable energy, and consumer protec-
23 tion.

24 (c) AUTHORITIES TO INTERVENE.—The Commission
25 shall have the authority to intervene and represent itself

1 before the Federal Energy Regulatory Commission and
2 other Federal and State agencies as it deems necessary
3 to accomplish its mission.

4 (d) TERMS OF OFFICE.—The term of office of each
5 Commissioner shall be 5 years, and any member may be
6 reappointed for not more than one additional term of 5
7 years.

8 (e) TERMINATION.—Unless extended by Act of Con-
9 gress, the Commission shall complete its work and cease
10 its activities by January 1, 2020, or on such earlier date
11 that the Commission determines that the proliferation,
12 evolution, and adaptation of Smart Grid technologies no
13 longer require Federal leadership and assistance.

14 (f) COMPENSATION OF MEMBERS.—Each member of
15 the Commission who is not an officer or employee of the
16 Federal Government shall be compensated at a rate equal
17 to the daily equivalent of the annual rate of basic pay pre-
18 scribed for level III of the Executive Schedule under sec-
19 tion 5315 of title 5, United States Code, for each day (in-
20 cluding travel time) during which such member is engaged
21 in the performance of the duties of the Commission. All
22 members of the Commission who are officers or employees
23 of the United States shall serve without compensation in
24 addition to that received for their services as officers or
25 employees of the United States.

1 (g) TRAVEL EXPENSES.—The members of the Com-
2 mission shall be allowed travel expenses, including per
3 diem in lieu of subsistence, at rates authorized for employ-
4 ees of agencies under subchapter I of chapter 57 of title
5 5, United States Code, while away from their homes or
6 regular places of business in the performance of services
7 for the Commission.

8 (h) MEETINGS.—The Commission shall meet at the
9 call of the Chairman. Commission meetings shall be open
10 to the public, but as many as three Commissioners may
11 meet in private without constituting a meeting requiring
12 public access.

13 (i) APPLICABILITY OF FEDERAL ADVISORY COM-
14 MITTEE ACT.—The Federal Advisory Committee Act (5
15 U.S.C. App. 1 et seq.) shall not apply to the Commission.

16 (j) OFFICES AND STAFF.—The Secretary of Energy
17 shall provide the Commission with offices in the Depart-
18 ment of Energy and shall make available to the Commis-
19 sion the expertise and staff resources of both the Office
20 of Electricity Delivery and Energy Reliability and the Of-
21 fice of Energy Efficiency and Renewable Energy.

22 (k) DETAIL OF GOVERNMENT EMPLOYEES.—Any
23 Federal Government employee may be detailed to the
24 Commission without reimbursement, and such detail shall

1 be without interruption or loss of civil service status or
2 privilege.

3 (l) EXECUTIVE DIRECTOR.—The Secretary of En-
4 ergy shall appoint an officer of the Senior Executive Serv-
5 ice to serve as Executive Director to the Commission.

6 (m) PROCUREMENT OF TEMPORARY AND INTERMIT-
7 TENT SERVICES.—The Chairman of the Commission may
8 procure temporary and intermittent services under section
9 3109(b) of title 5, United States Code, at rates for individ-
10 uals which do not exceed the daily equivalent of the annual
11 rate of basic pay prescribed for level V of the Executive
12 Schedule under section 5316 of such title.

13 (n) INFORMATION FROM FEDERAL AGENCIES.—The
14 Commission may secure directly from any Federal depart-
15 ment or agency such information as the Commission con-
16 siders necessary to carry out this part. Upon request of
17 the Chairman of the Commission, the head of such depart-
18 ment or agency shall furnish such information to the Com-
19 mission. The Commission shall maintain the same level of
20 confidentiality for such information made available under
21 this subsection as is required of the head of the depart-
22 ment or agency from which the information was obtained.

23 (o) POSTAL SERVICES.—The Commission may use
24 the United States mails in the same manner and under

1 the same conditions as other departments and agencies of
2 the Federal Government.

3 **SEC. 9113. GRID ASSESSMENT AND REPORT.**

4 (a) IN GENERAL.—The Grid Modernization Commis-
5 sion shall undertake, and update on a biannual basis, an
6 assessment of the progress toward modernizing the elec-
7 tric system from generation to ultimate electricity con-
8 sumption, including implementation of “smart grid” tech-
9 nologies. The Commission shall prepare this assessment
10 with input from stakeholders including but not limited to
11 electric utilities, other Federal offices, States, companies
12 involved in developing related technologies, the National
13 Electric Reliability Organization recognized by the Federal
14 Energy Regulatory Commission, electricity customers, and
15 persons with special related expertise. The assessment
16 shall include each of the following:

17 (1) An updated inventory of existing smart grid
18 systems.

19 (2) A description of the condition of existing
20 grid infrastructure and procedures for determining
21 the need for new infrastructure;

22 (3) A description of any plans of States, utili-
23 ties, or others to introduce smart grid systems and
24 technologies.

1 (4) An assessment of constraints to deployment
2 of smart grid technology and most important oppor-
3 tunities for doing so, including the readiness or lack
4 thereof of enabling technologies.

5 (5) An assessment of remaining potential bene-
6 fits resulting from introduction of smart grid sys-
7 tems, including benefits related to demand-side effi-
8 ciencies, improved reliability, improved security, re-
9 duced prices, and improved integration of renewable
10 resources.

11 (6) Recommendations for legislative or regu-
12 latory changes to remove barriers to and create in-
13 centives for smart grid system implementation and
14 to meet the policy goals of this title.

15 (7) An estimate of the potential costs required
16 for modernization of the electricity grid, with speci-
17 ficity relative to geographic areas and components of
18 the grid, together with an assessment of whether the
19 necessary funds would be available to meet such
20 costs, and the sources of such funds.

21 (8) An assessment of ancillary benefits to other
22 economic sectors or activities beyond the electricity
23 sector, such as potential broadband service over
24 power lines.

1 (9) An assessment of technologies, activities or
2 opportunities in energy end use devices, customer
3 premises, buildings, and power generation and stor-
4 age devices that could accelerate or expand the im-
5 pact and effectiveness of smart grid advances.

6 (10) An assessment of potential risks to per-
7 sonal privacy, corporate confidentiality, and grid se-
8 curity from the spread of smart grid technologies,
9 and if so what additional measures and policies are
10 needed to assure privacy and information protection
11 for electric customers and grid partners, and cyber-
12 security protection for extended grid systems.

13 (11) An assessment of the readiness of market
14 forces to drive further implementation and evolution
15 of “smart grid” technologies in the absence of gov-
16 ernment leadership.

17 (12) Recommendations to the Secretary of En-
18 ergy and other Federal officers on actions they
19 should take to assist.

20 The Commission may request electric utilities to provide
21 information relating to deployment and planned deploy-
22 ment of smart grid systems and technologies. At the re-
23 quest of the utility, the Commission shall maintain the
24 confidentiality of utility-specific or specific security-related
25 information. The Commission shall provide opportunities

1 for input and comment by interested persons, including
2 representatives of electricity consumers, Smart Grid tech-
3 nology service providers, the electric utility industry, and
4 State and local government.

5 (b) STATE AND REGIONAL ASSESSMENT AND RE-
6 PORT.—States or groups of States are encouraged to par-
7 ticipate in the development of State or region-specific com-
8 ponents of the assessment and report under subsection
9 (a). Such State-specific components may address the as-
10 sessment and reporting criteria above but also may include
11 but not be limited to any of the following:

12 (1) Assessment of types of security threats to
13 electricity delivery.

14 (2) Energy assurance and response plans to ad-
15 dress security threats.

16 (3) Plans for introduction of smart grid sys-
17 tems and technologies over 3, 5, and 10 year plan-
18 ning horizons.

19 The Commission may make grants to States that begin
20 development of a State or Regional Plan within 180 days
21 after the enactment of this Act to offset up to one-half
22 of the costs required to develop such plans.

23 (c) SMART GRID REPORT.—Based on its completed
24 initial assessment under subsection (a), the Commission
25 shall submit a report to Congress and the President not

1 later than 2 years after the date of enactment of this Act
2 and subsequent reports every 2 years thereafter. Each re-
3 port shall include recommendations to the President and
4 to the Congress on actions necessary to modernize the
5 electricity grid. The Commission shall annually update
6 and revise its report and as well as conduct ongoing moni-
7 toring and evaluation activities.

8 (d) CONSULTATION AND PUBLIC INPUT.—The Com-
9 mission shall consult with the Secretary of Energy and
10 the Federal Energy Regulatory Commission on technical
11 issues associated with advanced electricity grid tech-
12 nologies. The Commission shall to the extent feasible pro-
13 vide for broad and frequent input from stakeholders and
14 the general public.

15 (e) INTEROPERABILITY PROTOCOLS AND MODEL
16 STANDARDS FOR INFORMATION MANAGEMENT.—

17 (1) IN GENERAL.—The Grid Modernization
18 Commission shall work with the National Institute
19 of Standards and Technology, as well as with Smart
20 Grid stakeholders, to develop protocols and model
21 standards for information management to achieve
22 interoperability of smart grid devices and systems.
23 Such protocols and model standards shall be flexible,
24 uniform, and technology-neutral, including but not
25 limited to technologies for communication of Smart

1 Grid information. Such protocols and standards
2 shall further align policy, business, and technology
3 approaches in a manner that—

4 (A) enables all electric resources, including
5 demand-side resources, storage devices, renew-
6 able generation resources, other distributed gen-
7 eration resources, to be interconnected to and
8 function compatibly with the grid, on an auto-
9 mated basis to the extent appropriate;

10 (B) enables electricity-consuming equip-
11 ment to communicate with and contribute to an
12 efficient, reliable electricity network, on an
13 automated basis to the extent appropriate;

14 (C) enhances two-way communication be-
15 tween Smart-Grid enabled devices connected to
16 the electric power grid;

17 (D) supports the ability of Smart-Grid en-
18 abled devices to exchange information, regard-
19 less of the operating system, programming lan-
20 guages, or media of communication utilized by
21 such devices;

22 (E) enables the operators of utilities and
23 regional system operators of the grid to auto-
24 matically detect anomalies and respond to iso-

1 late areas affected in order to maintain reli-
2 ability; and

3 (F) enables State regulators and individual
4 utility managers to develop rate structures and
5 regulations incorporating Smart Grid capabili-
6 ties for the benefit of consumers and the elec-
7 tricity system, accommodating increased de-
8 mand response and distributed generation.

9 (2) MEETINGS AND WORKING GROUP FOR DE-
10 VELOPMENT OF INTEROPERABILITY PROTOCOLS AND
11 MODEL STANDARDS.—Within 60 days after the en-
12 actment of this section, the Director of the National
13 Institute of Standards and Technology shall convene
14 meetings of experts and stakeholders to discuss and
15 achieve such standards, for the purpose of forming
16 an ongoing voluntary working group. Upon the cre-
17 ation of the Grid Modernization Commission, the
18 Commission shall assume the role of convening fur-
19 ther such meetings and collaborating with such a
20 working group to continue progress towards such
21 standards, with continued technical support from the
22 Director of the National Institute of Standards and
23 Technology. The Gridwise Architecture Council, the
24 International Electrical and Electronics Engineers,
25 the National Electric Reliability Organization recog-

1 nized by the Federal Energy Regulatory Commis-
2 sion, and National Electrical Manufacturer's Asso-
3 ciation shall be among stakeholders invited to such
4 meetings, together with other groups of manufactur-
5 ers of equipment that could usefully be Smart-Grid
6 capable, groups of customers, State and Federal reg-
7 ulators, electric utility groups, communications and
8 computer experts, and other Federal offices and
9 agencies that have roles related to security, commu-
10 nications, computerization, and reliability of the elec-
11 tricity system.

12 (3) REPORTING AND ADOPTION OF PROTOCOLS
13 AND MODEL STANDARDS.—

14 (A) REPORTING REQUIREMENTS.—The Di-
15 rector of the National Institute of Standards
16 and Technology and the Grid Modernization
17 Commission, after it is created, shall report an-
18 nually to Congress on the progress of creating
19 such protocols and model standards.

20 (B) ADOPTION.—The Commission shall re-
21 view such protocols and standards as are rec-
22 ommended by the working group and, upon
23 finding that they meet the goals stated in para-
24 graph (1), shall publish such finding, and shall

1 encourage utilities, regulators, and other stake-
2 holders to adopt to such standards.

3 (C) PUBLICATION.—Except to the extent
4 they may allow or create threats to grid reli-
5 ability and security, such standards and proto-
6 cols shall be made publicly available for general
7 use by manufacturers, utilities, regulators, and
8 others.

9 (D) GOAL.—The intent of Congress is that
10 such protocols and model standards will be ini-
11 tially developed, reviewed, and approved for
12 general adoption, subject to further improve-
13 ments, within 3 years of the enactment of this
14 section.

15 (f) AUTHORIZATION.—There are authorized to be ap-
16 propriated for the purposes of this section—

17 (1) \$5,000,000 to the National Institute of
18 Standards and Technology for each of fiscal years
19 2009 through 2012, and such sums as may there-
20 after be necessary to support the purposes of this
21 section; and

22 (2) \$20,000,000 to the Secretary of Energy to
23 support the operations of the Grid Modernization
24 Commission for each of fiscal years 2009 through
25 2020.

1 **SEC. 9114. FEDERAL MATCHING FUND FOR SMART GRID IN-**
2 **VESTMENT COSTS.**

3 (a) **MATCHING FUND.**—The Secretary of Energy
4 shall establish a Smart Grid Investment Matching Grant
5 Program to provide reimbursement of one-fourth of quali-
6 fying Smart Grid investments.

7 (b) **QUALIFYING INVESTMENTS.**—Qualifying Smart
8 Grid investments may include any of the following made
9 on or after the date of enactment of this Act:

10 (1) In the case of appliances covered for pur-
11 poses of establishing energy conservation standards
12 under part B of title III of the Energy Policy and
13 Conservation Act of 1975 (42 U.S.C. 6291 et seq.),
14 the documented expenditures incurred by a manu-
15 facturer of such appliances associated with pur-
16 chasing or designing, creating the ability to manu-
17 facture, and manufacturing and installing for one
18 calendar year, internal devices that allow the appli-
19 ance to engage in Smart Grid functions.

20 (2) In the case of specialized electricity-using
21 equipment, including motors and drivers, installed in
22 industrial or commercial applications, the docu-
23 mented expenditures incurred by its owner or its
24 manufacturer of installing devices or modifying that
25 equipment to engage in Smart Grid functions.

1 (3) In the case of transmission and distribution
2 equipment fitted with monitoring and communica-
3 tions devices to enable smart grid functions, the doc-
4 umented expenditures incurred by the electric utility
5 to purchase and install such monitoring and commu-
6 nications devices.

7 (4) In the case of metering devices, sensors,
8 control devices, and other devices integrated with
9 and attached to an electric utility system that are
10 capable of engaging in Smart Grid functions, the
11 documented expenditures incurred by the electric
12 utility and its customers to purchase and install
13 such devices.

14 (5) In the case of software that enables devices
15 or computers to engage in Smart Grid functions, the
16 documented purchase costs of the software.

17 (6) In the case of entities that operate or co-
18 ordinate operations of regional electric grids, the
19 documented expenditures for purchasing and install-
20 ing such equipment that allows Smart Grid func-
21 tions to operate and be combined or coordinated
22 among multiple electric utilities and between that re-
23 gion and other regions.

24 (7) In the case of persons or entities other than
25 electric utilities owning and operating a distributed

1 electricity generator, the documented expenditures of
2 enabling that generator to be monitored, controlled,
3 or otherwise integrated into grid operations and elec-
4 tricity flows on the grid utilizing Smart Grid func-
5 tions.

6 (8) In the case of electric or hybrid-electric ve-
7 hicles, the documented expenses for devices that
8 allow the vehicle to engage in Smart Grid functions.

9 (9) The documented expenditures related to
10 purchasing and implementing Smart Grid functions
11 in such other cases as the Secretary of Energy shall
12 identify. In making such grants, the Secretary shall
13 seek to reward innovation and early adaptation, even
14 if success is not complete, rather than deployment of
15 proven and commercially viable technologies.

16 (c) INVESTMENTS NOT INCLUDED.—Qualifying
17 Smart Grid investments do not include any of the fol-
18 lowing:

19 (1) Expenditures for electricity generation,
20 transmission, or distribution infrastructure or equip-
21 ment not directly related to enabling Smart Grid
22 functions.

23 (2) After the effective date of a standard under
24 paragraph (21) of section 111(d) of the Public Util-
25 ity Regulatory Policies Act of 1978 (relating to

1 Smart Grid information), an investment that is not
2 in compliance with such standard.

3 (3) After the development and publication by
4 the Commission of protocols and model standards
5 for interoperability of smart grid devices and tech-
6 nologies, an investment that fails to incorporate any
7 of such protocols or model standards.

8 (4) Expenditures for physical interconnection of
9 generators or other devices to the grid except those
10 that are directly related to enabling Smart Grid
11 functions.

12 (5) Expenditures for ongoing salaries, benefits,
13 or personnel costs not incurred in the initial installa-
14 tion, training, or start up of smart grid functions.

15 (6) Expenditures for travel, lodging, meals or
16 other personal costs.

17 (7) Ongoing or routine operation, billing, cus-
18 tomer relations, security, and maintenance expendi-
19 tures.

20 (8) Such other expenditures that the Secretary
21 of Energy determines not to be Qualifying Smart
22 Grid Investments by reason of the lack of the ability
23 to perform smart grid functions or lack of direct re-
24 lationship to smart grid functions.

1 (d) SMART GRID FUNCTIONS.—The term “smart
2 grid functions” means any of the following:

3 (1) The ability to develop, store, send and re-
4 ceive digital information concerning electricity use,
5 costs, prices, time of use, nature of use, storage, or
6 other information relevant to device, grid, or utility
7 operations, to or from or by means of the electric
8 utility system, through one or a combination of de-
9 vices and technologies.

10 (2) The ability to develop, store, send and re-
11 ceive digital information concerning electricity use,
12 costs, prices, time or use, nature of use, storage, or
13 other information relevant to device, grid, or utility
14 operations to or from a computer or other control
15 device.

16 (3) The ability to measure or monitor electricity
17 use as a function of time of day, power quality char-
18 acteristics such as voltage level, current, cycles per
19 second, or source or type of generation and to store,
20 synthesize or report that information by digital
21 means.

22 (4) The ability to sense and localize disruptions
23 or changes in power flows on the grid and commu-
24 nicate such information instantaneously and auto-
25 matically for purposes of enabling automatic protec-

1 tive responses to sustain reliability and security of
2 grid operations.

3 (5) The ability to detect, prevent, communicate
4 with regard to, respond to, or recover from system
5 security threats, including cyber-security threats and
6 terrorism, using digital information, media, and de-
7 vices.

8 (6) The ability of any appliance or machine to
9 respond to such signals, measurements, or commu-
10 nications automatically or in a manner programmed
11 by its owner or operator without independent human
12 intervention.

13 (7) The ability to use digital information to op-
14 erate functionalities on the electric utility grid that
15 were previously electro-mechanical or manual.

16 (8) The ability to use digital controls to manage
17 and modify electricity demand, enable congestion
18 management, assist in voltage control, provide oper-
19 ating reserves, and provide frequency regulation.

20 (9) Such other functions as the Secretary of
21 Energy may identify as being necessary or useful to
22 the operation of a Smart Grid.

23 (e) OFFICE.—The Secretary of Energy shall—

24 (1) establish an Office to administer the Smart
25 Grid Investment Grant Program, assuring that ex-

1 pert resources from the Commission on Grid Mod-
2 ernization, the Office of Energy Distribution and
3 Electricity Reliability, and the Office of Energy Effi-
4 ciency and Renewable Energy are fully available to
5 advise on its administration and actions;

6 (2) appoint a Senior Executive Service officer
7 to direct the Office, together with such personnel as
8 are required to administer the Smart Grid Invest-
9 ment Grant program;

10 (3) establish and publish in the Federal Reg-
11 ister, within 180 days after the enactment of this
12 Act procedures by which applicants who have made
13 qualifying Smart Grid investments can seek and ob-
14 tain reimbursement of one-fourth of their docu-
15 mented expenditures;

16 (4) establish procedures to assure that there is
17 no duplication or multiple reimbursement for the
18 same investment or costs, that the reimbursement
19 goes to the party making the actual expenditures for
20 Qualifying Smart Grid Investments, and that the
21 grants made have significant effect in encouraging
22 and facilitating the development of a smart grid.;

23 (5) maintain public records of reimbursements
24 made, recipients, and qualifying Smart Grid invest-
25 ments which have received reimbursements;

1 (6) establish procedures to provide, in cases
2 deemed by the Secretary to be warranted, advance
3 payment of moneys up to the full amount of the pro-
4 jected eventual reimbursement, to creditworthy ap-
5 plicants whose ability to make Qualifying Smart
6 Grid Investments may be hindered by lack of initial
7 capital, in lieu of any later reimbursement for which
8 that applicant qualifies, and subject to full return of
9 the advance payment in the event that the Quali-
10 fying Smart Grid investment is not made;

11 (7) establish procedures to provide, in the event
12 appropriated moneys in any year are insufficient to
13 provide reimbursements for qualifying Smart Grid
14 investments, that such reimbursement would be
15 made in the next fiscal year or whenever funds are
16 again sufficient, with the condition that the insuffi-
17 ciency of funds to reimburse Qualifying Smart Grid
18 Investments from moneys appropriated for that pur-
19 pose does not create a Federal obligation to that ap-
20 plicant; and

21 (8) have and exercise the discretion to deny
22 grants for investments that do not qualify in the
23 reasonable judgement of the Secretary.

1 (f) AUTHORIZATION OF APPROPRIATIONS.—There
2 are authorized to be appropriated to the Secretary of En-
3 ergy the sums of—

4 (1) \$10,000,000 for each of fiscal years 2008
5 through 2012 to provide for administration of the
6 Smart Grid Investment Matching Fund; and

7 (2) \$250,000,000 for fiscal year 2008 and
8 \$500,000,000 for each of fiscal years 2009 through
9 2012 to provide reimbursements of one-fourth of
10 Qualifying Smart Grid Investments.

11 **SEC. 9115. SMART GRID TECHNOLOGY DEPLOYMENT.**

12 (a) POWER GRID DIGITAL INFORMATION TECH-
13 NOLOGY.—The Secretary of Energy shall conduct pro-
14 grams to—

15 (1) deploy advanced techniques for measuring
16 peak load reductions and energy efficiency savings
17 on customer premises from smart metering, demand
18 response, distributed generation and electricity stor-
19 age systems;

20 (2) implement means for demand response, dis-
21 tributed generation, and storage to provide ancillary
22 services;

23 (3) advance the use of wide-area measurement
24 networks including data mining, visualization, ad-

1 vanced computing, and secure and dependable com-
2 munications in a highly distributed environment; and

3 (4) implement reliability technologies in a grid
4 control room environment against a representative
5 set of local outage and wide area blackout scenarios.

6 (b) SMART GRID REGIONAL DEMONSTRATION PRO-
7 GRAM.—

8 (1) ESTABLISHMENT OF PROGRAM.—The Sec-
9 retary of Energy shall establish a program of dem-
10 onstration projects specifically focused on advanced
11 technologies for power grid sensing, communications,
12 analysis, and power flow control, including the inte-
13 gration of demand-side resources into grid manage-
14 ment. The goals of this program shall be to—

15 (A) demonstrate the potential benefits of
16 concentrated investments in advanced grid tech-
17 nologies on a regional grid;

18 (B) facilitate the commercial transition
19 from the current power transmission and dis-
20 tribution system technologies to advanced tech-
21 nologies; and

22 (C) facilitate the integration of advanced
23 technologies in existing electric networks to im-
24 prove system performance, power flow control
25 and reliability.

1 (2) DEMONSTRATION PROJECTS.—The Sec-
2 retary shall establish Smart Grid demonstration
3 projects for not more than 5 electric utility systems
4 of various types and sizes under this subsection.
5 Such demonstration projects shall be undertaken in
6 cooperation with the electric utility. Under such
7 demonstration projects, financial assistance shall be
8 available to cover not more than one-half of the
9 qualifying Smart Grid technology investments made
10 by the electric utility. Any project receiving financial
11 assistance under this section shall not be eligible to
12 receive financial assistance (including loan guaran-
13 tees) under any other Federal program.

14 (c) AUTHORIZATION.—

15 (1) POWER GRID DIGITAL INFORMATION TECH-
16 NOLOGY PROGRAMS.—There are authorized to be ap-
17 propriated to carry out subsection (a) such sums as
18 are necessary for each of the fiscal years 2008
19 through 2012.

20 (2) SMART GRID REGIONAL DEMONSTRATION
21 PROGRAM.—There is authorized to be appropriated
22 to carry out subsection (b) \$20,000,000 for each of
23 the fiscal years 2008 through 2012.

1 **SEC. 9116. SMART GRID INFORMATION REQUIREMENTS.**

2 (a) FINDINGS.—Congress finds that Smart Grid
3 technologies will require, for their optimum use by elec-
4 tricity consumers, that such consumers have access to in-
5 formation on prices, use, and other factors in possession
6 of their utilities or electricity suppliers, in order to assist
7 the customers in optimizing their electricity use and lim-
8 iting the associated environmental impacts.

9 (b) DEVELOPMENT OF RULES.—The Commission on
10 Grid Modernization shall within one year of its initial
11 meeting develop and declare a standard for the collection,
12 presentation and delivery of information to electricity pur-
13 chasers as required by the standard under section
14 111(d)(21) of the Public Utility Regulatory Policies Act
15 of 1978. Such standard shall provide purchasers with dif-
16 ferent access options for such information. Such standard
17 shall be developed with input from the Secretary of En-
18 ergy, the Federal Energy Regulatory Commission, the Ad-
19 ministrator of the Environmental Protection Agency,
20 States, and stakeholders representing, but not limited to,
21 electric utilities, energy efficiency and demand response
22 experts, environmental organizations and consumer orga-
23 nizations.

24 (c) APPLICATION OF SMART GRID INFORMATION
25 STANDARD TO FEDERAL ENTITIES AND WHOLESALE
26 MARKETS.—Within 60 days of the declaration of the

1 standard under subsection (b), the Federal Energy Regu-
2 latory Commission shall propose a rule under which all
3 public utilities, with respect to federally jurisdictional sales
4 for resale of electricity in interstate commerce, and all ap-
5 proved regional transmission organizations subject to its
6 jurisdiction, will implement those elements of the Smart
7 Grid information standard developed pursuant to this sec-
8 tion that the Commission determines to be relevant and
9 to add value for purchasers of wholesale power or those
10 utilizing interstate transmission. The Tennessee Valley
11 Authority, Bonneville Power Administration, and Federal
12 power administrations shall, within 90 days of the adop-
13 tion of a final rule by the Commission, adopt it for their
14 own sales or transmission of electricity.

15 **SEC. 9117. STATE CONSIDERATION OF INCENTIVES FOR**
16 **SMART GRID.**

17 (a) CONSIDERATION OF ADDITIONAL STANDARDS.—
18 Section 111(d) of the Public Utility Regulatory Policies
19 Act of 1978 (16 U.S.C. 2621(d)) is amended by adding
20 at the end:

21 “(16) UTILITY INVESTMENT IN SMART GRID IN-
22 VESTMENTS.—Each electric utility shall prior to un-
23 dertaking investments in non-advanced grid tech-
24 nologies demonstrate that alternative investments in
25 advanced grid technologies have been considered, in-

1 including from a standpoint of cost-effectiveness,
2 where such cost-effectiveness considers costs and
3 benefits on a life-cycle basis.

4 “(17) UTILITY COST OF SMART GRID INVEST-
5 MENTS.—Each electric utility shall be permitted
6 to—

7 “(A) recover from ratepayers the capital
8 and operating expenditures and other costs of
9 the utility for qualified smart grid system, in-
10 cluding a reasonable rate of return on the cap-
11 ital expenditures of the utility for a qualified
12 smart grid system, and

13 “(B) recover in a timely manner the re-
14 maining book-value costs of equipment rendered
15 obsolete by the deployment of a qualified smart
16 grid system, based on the remaining depreciable
17 life of the obsolete equipment.

18 “(18) RATE DESIGN MODIFICATIONS TO PRO-
19 MOTE ENERGY EFFICIENCY INVESTMENTS.—

20 “(A) IN GENERAL.—The rates allowed to
21 be charged by any electric utility shall—

22 “(i) align utility incentives with the
23 delivery of cost-effective energy efficiency;
24 and

1 “(ii) promote energy efficiency invest-
2 ments.

3 “(B) POLICY OPTIONS.—In complying with
4 subparagraph (A), each State regulatory au-
5 thority and each nonregulated utility shall con-
6 sider—

7 “(i) removing the throughput incen-
8 tive and other regulatory and management
9 disincentives to energy efficiency;

10 “(ii) providing utility incentives for
11 the successful management of energy effi-
12 ciency programs;

13 “(iii) including the impact on adoption
14 of energy efficiency as 1 of the goals of re-
15 tail rate design, recognizing that energy ef-
16 ficiency must be balanced with other objec-
17 tives;

18 “(iv) adopting rate designs that en-
19 courage energy efficiency for each cus-
20 tomer class;

21 “(v) allowing timely recovery of en-
22 ergy efficiency-related costs; and

23 “(vi) offering home energy audits,
24 publicizing the financial and environmental
25 benefits associated with making home en-

1 ergy efficiency improvements, and edu-
2 cating homeowners about all existing Fed-
3 eral and State incentives, including the
4 availability of low-cost loans, that make
5 home energy efficiency improvements more
6 affordable.

7 “(19) SMART GRID INFORMATION.—

8 “(A) STANDARD.—All electricity pur-
9 chasers shall be provided direct access, both in
10 written and electronic machine-readable form,
11 to information from their electricity provider as
12 provided in subparagraph (B).

13 “(B) INFORMATION.—Information pro-
14 vided under this section shall conform to the
15 standardized rules issued by the Commission on
16 Grid Modernization under section 9116(b) of
17 the Smart Grid Facilitation Act of 2007 and
18 shall include:

19 “(i) PRICES.—Purchasers and other
20 interested persons shall be provided with
21 information on:

22 “(I) Time-based electricity prices
23 in the wholesale electricity market;
24 and

1 “(II) Time-based electricity retail
2 prices or rates that are available to
3 the purchasers.

4 “(ii) USAGE.—Purchasers shall be
5 provided with the number of electricity
6 units, expressed in kwh, purchased by
7 them

8 “(iii) INTERVALS AND PROJEC-
9 TIONS.—Updates of information on prices
10 and usage shall be offered on not less than
11 a daily basis, shall include hourly price and
12 use information, where available, and shall
13 include a day-ahead projection of such
14 price information to the extent available.

15 “(iv) SOURCES.—Purchasers and
16 other interested person shall be provided
17 with written information on the sources of
18 the power provided by the utility, to the
19 extent it can be determined, by type of
20 generation, including greenhouse gas emis-
21 sions and criteria pollutants associated
22 each type of generation, for intervals dur-
23 ing which such information is available on
24 a cost-effective basis, but not less than
25 monthly.

1 “(C) ACCESS.—Purchasers shall be able to
2 access their own information at any time
3 through the internet and on other means of
4 communication elected by that utility for Smart
5 Grid applications. Other interested persons
6 shall be able to access information not specific
7 to any purchaser through the Internet. Infor-
8 mation specific to any purchaser shall be pro-
9 vided solely to that purchaser.”.

10 (b) RECONSIDERATION OF CERTAIN STANDARDS.—
11 Section 112 of the Public Utility Regulatory Policies Act
12 of 1978 (16 U.S.C. 2622) is amended by adding the fol-
13 lowing at the end thereof:

14 “(g) RECONSIDERATION OF PRIOR TIME-OF-DAY
15 AND COMMUNICATION STANDARDS.—Not later than 1
16 year after the enactment of this subsection, each State
17 regulatory authority (with respect to each electric utility
18 for which it has ratemaking authority) and each nonregu-
19 lated utility shall commence a reconsideration under sec-
20 tion 111, or set a hearing date for reconsideration, with
21 respect to the standards established by paragraphs (3)
22 and (14) of section 111(d) to take into account Smart
23 Grid technologies. Not later than 2 years after the date
24 of the enactment of this subsection, each State regulatory
25 authority (with respect to each electric utility for which

1 it has ratemaking authority), and each nonregulated elec-
2 tric utility, shall complete the reconsideration, and shall
3 make the determination, referred to in section 111 with
4 respect to the standards established by paragraphs (3)
5 and (14) of section 111(d).”.

6 (c) COMPLIANCE.—

7 (1) TIME LIMITATIONS.—Section 112(b) of the
8 Public Utility Regulatory Policies Act of 1978 (16
9 U.S.C. 2622(b)) is amended by adding the following
10 at the end thereof:

11 “(6)(A) Not later than 1 year after the enactment
12 of this paragraph, but not less than 3 years after the con-
13 clusion of any prior review of such standards, each State
14 regulatory authority (with respect to each electric utility
15 for which it has ratemaking authority) and each nonregu-
16 lated utility shall commence the consideration referred to
17 in section 111, or set a hearing date for consideration,
18 with respect to the standards established by paragraphs
19 (16) through (18) of section 111(d). Not later than 6
20 months after the promulgation of rules by the Commission
21 on Grid Modernization under section 9116(b) of the Smart
22 Grid Facilitation Act of 2007, each State regulatory au-
23 thority (with respect to each electric utility for which it
24 has ratemaking authority) and each nonregulated utility
25 shall commence the consideration referred to in section

1 111, or set a hearing date for consideration, with respect
2 to the standard established by paragraph (19) of section
3 111(d).

4 “(B) Not later than 2 years after the date of
5 the enactment of the this paragraph, but not less
6 than 4 years after the conclusion of any prior review
7 of such standard, each State regulatory authority
8 (with respect to each electric utility for which it has
9 ratemaking authority), and each nonregulated elec-
10 tric utility, shall complete the consideration, and
11 shall make the determination, referred to in section
12 111 with respect to each standard established by
13 paragraphs (16) through (18) of section 111(d). Not
14 later than 18 months after the promulgation of rules
15 by the Commission on Grid Modernization under
16 section 9116(b) of the Smart Grid Facilitation Act
17 of 2007 each State regulatory authority (with re-
18 spect to each electric utility for which it has rate-
19 making authority), and each nonregulated electric
20 utility, shall complete the consideration, and shall
21 make the determination, referred to in section 111
22 with respect to each standard established by para-
23 graph (19) of section 111(d).”.

24 (2) FAILURE TO COMPLY.—Section 112(c) of
25 such Act is amended by adding the following at the

1 end: “In the case of the standards established by
2 paragraphs (16) through (19) of section 111(d), the
3 reference contained in this subsection to the date of
4 enactment of this Act shall be deemed to be a ref-
5 erence to the date of enactment of such para-
6 graphs.”.

7 (3) PRIOR STATE ACTIONS.—Section 112(d) of
8 such Act is amended by inserting “and paragraphs
9 (16) through (18)” before “of section 111(d)”.

10 **SEC. 9118. DOE STUDY OF SECURITY ATTRIBUTES OF**
11 **SMART GRID SYSTEMS.**

12 (a) DOE STUDY.—The Secretary of Energy shall,
13 within 6 months after the Grid Modernization Commission
14 completes its first biennial assessment and report under
15 section 9113 of this Act, submit a report to Congress that
16 provides a quantitative assessment and determination of
17 the existing and potential impacts of the deployment of
18 Smart Grid systems on improving the security of the Na-
19 tion’s electricity infrastructure and operating capability.
20 The report shall include but not be limited to specific rec-
21 ommendations on each of the following:

22 (1) How smart grid systems can help in making
23 the Nation’s electricity system less vulnerable to dis-
24 ruptions due to intentional acts against the system.

1 (2) How smart grid systems can help in restor-
 2 ing the integrity of the Nation’s electricity system
 3 subsequent to disruptions.

4 (3) How smart grid systems can facilitate emer-
 5 gency communications and control of the Nation’s
 6 electricity system during times of localized or nation-
 7 wide emergency.

8 (b) CONSULTATION.—The Secretary shall consult
 9 with other Federal agencies in the development of the re-
 10 port under this section, including but not limited to the
 11 Secretary of Homeland Security, the Federal Energy Reg-
 12 ulatory Commission and the Electric Reliability Organiza-
 13 tion certified by the Commission under section 215(c) of
 14 the Federal Power Act (16 U.S.C. 824 o) as added by
 15 section 1211 of the Energy Policy Act of 2005 (Public
 16 Law 109–58; 119 Stat. 941)

17 (c) FUNDING.—The Secretary shall fund demonstra-
 18 tion projects for the purpose of demonstrating the findings
 19 of the report under this section. Not more than
 20 \$10,000,000 are authorized to be appropriated for such
 21 projects.

22 **PART 2—DEMAND RESPONSE**

23 **SEC. 9121. ELECTRICITY SECTOR DEMAND RESPONSE.**

24 (a) AMENDMENT OF NECPA.—Title V of the Na-
 25 tional Energy Conservation Policy Act (42 U.S.C. 8201

1 and following) is amended by adding the following new
2 part at the end thereof:

3 **“PART 5—PEAK DEMAND REDUCTION**

4 **“SEC. 571. DEFINITIONS.**

5 “(a) SECRETARY.—As used in this part, the term
6 ‘Secretary’ means the Secretary of Energy.

7 “(b) FEDERAL AGENCY.—As used in this part, the
8 term ‘Federal agency’ has the same meaning as provided
9 by section 551 of this Act.

10 **“SEC. 572. FEDERAL ELECTRICITY PEAK DEMAND REDUC-**
11 **TION STANDARD.**

12 “(a) 2008 AGENCY ANNUAL ENERGY PLAN.—Each
13 Federal agency shall prepare, and include in its annual
14 report under section 548(a) of this Act, each of the fol-
15 lowing:

16 “(1) A determination of the agency’s aggregate
17 electricity demand during the system peak hours for
18 the utilities providing electricity service to its facili-
19 ties during 2006 and 2007.

20 “(2) A forecast for each year through 2018 of
21 the projected growth in such peak demand in light
22 of projected growth of facilities, staff, activities, elec-
23 tric intensity of activities, and other relevant factors.

24 “(b) FEDERAL ELECTRICITY PEAK DEMAND REDUC-
25 TION STANDARD.—

1 “(1) IN GENERAL.—Except as provided in para-
 2 graph (2), for calendar year 2009 and each calendar
 3 year thereafter, each Federal agency shall reduce its
 4 aggregate peak electricity demand or make such
 5 amounts of electricity demand available in the form
 6 of demand response, by the percentage amount spec-
 7 ified in the Federal Electricity Peak Demand Reduc-
 8 tion Standard set forth in the following table:

“Federal Electricity Peak Demand Reduction Standard

Calendar Year	Reduction of Peak Demand Forecast
2009	2 percent of the peak demand forecast for cal- endar year 2009
2010	4 percent of the peak demand forecast for cal- endar year 2010
2011	6 percent of the peak demand forecast for cal- endar year 2011
2012	8 percent of the peak demand forecast for cal- endar year 2012
2013	10 percent of the peak demand forecast for cal- endar year 2013
2014	12 percent of the peak demand forecast for cal- endar year 2014
2015	14 percent of the peak demand forecast for cal- endar year 2015
2016	16 percent of the peak demand forecast for cal- endar year 2016
2017	18 percent of the peak demand forecast for cal- endar year 2017
2018 and each calendar year thereafter.	20 percent of the peak demand forecast for the applicable calendar year

9 In the table above, the term ‘forecast’ refers to the
 10 forecast set forth in the 2008 report under section
 11 548(a) of this Act as updated in accordance with
 12 subsection in (c)(1)(C).

13 “(2) EXCEPTION.—The standard under this
 14 subsection shall not apply to any activity of a Fed-

1 eral agency relating to defense or national security
2 if compliance with the standard would have an ad-
3 verse mission impact on the activity, as determined
4 by the Secretary of Defense or the Secretary of
5 Homeland Security.

6 “(c) IMPLEMENTATION OF STANDARD.—

7 “(1) IN GENERAL.—Not later than January 1,
8 2010, and each calendar year thereafter, each Fed-
9 eral agency shall include in the annual energy plan
10 of the Federal agency each of the following:

11 “(A) An assessment of whether the Fed-
12 eral agency was in compliance with the stand-
13 ard under subsection (b) for the preceding year.

14 “(B) A description of—

15 “(i) the method by which the Federal
16 agency proposes to comply with the stand-
17 ard for the following calendar year; and

18 “(ii) the factors relied on by the head
19 of the Federal agency in determining
20 whether to participate in demand response
21 programs offered by an electric utility or
22 others during the preceding calendar year;
23 and

24 “(iii) if the Federal agency did not
25 participate in a demand response program

1 offered by each utility providing electric
2 service to facilities of the agency during
3 the preceding calendar year, an expla-
4 nation for the decision by the head of the
5 Federal agency to not participate.

6 “(C) An update of the agency’s prior fore-
7 cast for the remaining years in the period until
8 2018.

9 “(2) AVAILABILITY TO PUBLIC.—Not later than
10 January 1, 2010, and each calendar year thereafter,
11 the head of each Federal agency shall make available
12 to the public a description of each provision included
13 in the annual energy plan of the Federal agency de-
14 scribed in subparagraphs (A) through (C) of para-
15 graph (1).

16 “(d) MODIFICATIONS TO FEDERAL ENERGY MAN-
17 AGEMENT PROGRAM.—The Secretary shall make any
18 modification to the Federal Energy Management Program
19 of the Department of Energy that the Secretary deter-
20 mines to be necessary to—

21 “(1) incorporate the standard established under
22 subsection (b) into the Federal Energy Management
23 Program;

24 “(2) assist any Federal agency to comply with
25 the standard established under subsection (b)

1 through any appropriate means, including con-
2 ducting 1 or more demonstration projects at Federal
3 facilities.

4 “(e) ANNUAL REPORT.—Not later than March 1,
5 2010, and annually thereafter, the Secretary shall submit
6 to Congress a report that evaluates the success of agencies
7 in meeting the standard established under subsection (b)
8 and the success of the Federal Energy Management Pro-
9 gram in assisting agencies with meeting the standard, and
10 the costs and benefits of such participation.

11 **“SEC. 573. NATIONAL ACTION PLAN FOR DEMAND RE-**
12 **SPONSE.**

13 “(a) NATIONAL ASSESSMENT AND REPORT.—The
14 Grid Modernization Commission established under subtitle
15 A of title I of the Smart Grid Facilitation Act of 2007
16 shall conduct a National Assessment of Demand Re-
17 sponse. The Commission shall, within 18 months of the
18 date on which the full Commission first meets, submit a
19 Report to Congress that includes each of the following:

20 “(1) Estimation of nationwide demand response
21 potential in 5 and 10 year horizons, including data
22 on a State-by-State basis, and a methodology for up-
23 dates of such estimates on an annual basis.

24 “(2) Estimation of how much of this potential
25 can be achieved within 5 and 10 years after the en-

1 actment of this Act accompanied by specific policy
2 recommendations that if implemented can achieve
3 the estimated potential. Such recommendations shall
4 include options for funding and/or incentives for the
5 development of demand response resources. The
6 Commission shall seek to take advantage of pre-
7 existing research and ongoing work, and shall as-
8 sume that there is no duplication of effort. The
9 Commission shall further note any barriers to de-
10 mand response programs that are flexible , non-dis-
11 criminatory, and fairly compensatory for the services
12 and benefits made available and shall provide rec-
13 ommendations for overcoming such barriers.

14 “(b) NATIONAL ACTION PLAN ON DEMAND RE-
15 SPONSE.—The Grid Modernization Commission shall fur-
16 ther develop and implement a National Action Plan on De-
17 mand Response. Such Plan shall be completed within one
18 year after the completion of the National Assessment of
19 Demand Response, and shall meet each of the following
20 objectives:

21 “(1) Provision of adequate technical assistance
22 to States to allow them to maximize the amount of
23 demand response resources that can be developed
24 and deployed.

1 “(2) Implementation of a national communica-
2 tions program that includes broad-based customer
3 education and support.

4 “(3) Development and dissemination of tools,
5 information and other support mechanisms for use
6 by customers, states, utilities and demand response
7 providers.

8 “(c) AUTHORIZATION.—There are authorized to be
9 appropriated to carry out this section not more than
10 \$10,000,000 for each of the fiscal years 2008 and 2009
11 and \$20,000,000 for each of the fiscal years 2010 through
12 2020.

13 **“SEC. 574. REPORT ON ENVIRONMENTAL ATTRIBUTES AND**
14 **IMPACTS OF DEMAND RESPONSE AND SMART**
15 **GRID SYSTEMS.**

16 “(a) REPORT.—The Administrator of the Environ-
17 mental Protection Agency shall solicit public input and,
18 within 6 months after completion of the National Assess-
19 ment of Demand Response required by section 573, sub-
20 mit a report to Congress that addresses each of the fol-
21 lowing:

22 “(1) A quantitative assessment and determina-
23 tion of the existing and potential impacts of demand
24 response and ‘smart grid’ systems on air emissions

1 and air quality, including but not limited to carbon
2 dioxide, oxides of nitrogen and oxides of sulfur.

3 “(2) An assessment and determination of the
4 existing and potential impacts of demand response
5 and ‘smart grid’ systems on environmental param-
6 eters other than emissions and air quality, including
7 but not limited to:

8 “(A) Land use.

9 “(B) Water use.

10 “(C) Use of renewable energy.

11 “(D) Effect on energy sources other than
12 electricity.

13 “(3) A detailed plan for how Energy Efficiency
14 and Clean Energy programs administered by the
15 Agency, including the Energy Star Program, will in-
16 corporate and encourage end-use efficiency, demand
17 response and ‘smart grid’ systems and technologies,
18 including but not limited to each of the following:

19 “(A) Requirements that appliances and
20 other equipment are capable of manually and
21 automatically receiving and acting upon pricing
22 and control information and or instructions pro-
23 vided by the customer, a load serving entity or
24 a third-party designated by the customer.

1 “(B) Requirements for time-based val-
 2 uation of kilowatt hour reductions in planning
 3 and evaluation of energy efficiency programs.

4 “(C) Education and communication, in-
 5 cluding to state energy officials and state regu-
 6 lators, that build awareness of demand response
 7 and smart grid systems and technologies and
 8 their existing and potential relationship to such
 9 Agency programs.

10 “(b) FUNDING.—There are authorized to be appro-
 11 priated to carry out this section such sums as may be nec-
 12 essary for fiscal year 2010, to remain available until ex-
 13 pended.”.

14 (b) TABLE OF CONTENTS.—The table of contents for
 15 such Act is amended by adding the following after the
 16 items relating to part 4 of title V:

“PART 5—PEAK DEMAND REDUCTION

“Sec. 571. Definitions.

“Sec. 572. Federal Electricity Peak Demand Reduction Standard.

“Sec. 573. National action plan for demand response.

“Sec. 574. Report on environmental attributes and impacts of demand response
 and smart grid systems.”.

17 **Subtitle C—Loan Guarantees**

18 **SEC. 9201. AMOUNT OF LOANS GUARANTEED.**

19 Section 1702 of the Energy Policy Act of 2005 (42
 20 U.S.C. 16512) is amended—

21 (1) by amending subsection (c) to read as fol-
 22 lows:

1 “(c) AMOUNT.—

2 “(1) PERCENTAGE OF PROJECT COST.—A guar-
3 antee by the Secretary shall not exceed an amount
4 equal to 80 percent of the project cost of the facility
5 that is the subject of the guarantee, as estimated at
6 the time at which the guarantee is issued, and shall
7 be no less than the minimum amount determined by
8 the Secretary to be likely to attract nonguaranteed
9 investment adequate to capitalize the project.

10 “(2) PERCENTAGE OF LOAN.—Subject to para-
11 graph (1), the Secretary may guarantee up to 100
12 percent of any loan or other debt obligation of the
13 borrower to fund an eligible project, and may not
14 issue a rule or regulation establishing a lower per-
15 centage limit.”; and

16 (2) by adding at the end the following new sub-
17 section:

18 “(k) WAGES.—No loan guarantee shall be made
19 under this title unless the borrower has provided to the
20 Secretary reasonable assurances that all laborers and me-
21 chanics employed by contractors or subcontractors in the
22 performance of construction work financed in whole or in
23 part with the loan will be paid wages at rates not less
24 than those prevailing on similar work in the locality as
25 determined by the Secretary of Labor in accordance with

1 subchapter IV of chapter 31 of title 40, United States
 2 Code (commonly referred to as the Davis-Bacon Act).”.

3 **SEC. 9202. EXCLUSION OF CATEGORIES.**

4 Section 1704 of the Energy Policy Act of 2005 (42
 5 U.S.C. 16514) is amended by adding at the end the fol-
 6 lowing new subsection:

7 “(c) EXCLUSION OF CATEGORIES.—No appropriation
 8 authorized pursuant to this section may exclude any cat-
 9 egory of eligible project described in section 1703.”.

10 **Subtitle D—Renewable Fuel Infra-**
 11 **structure and International Co-**
 12 **operation**

13 **PART 1—RENEWABLE FUEL INFRASTRUCTURE**

14 **SEC. 9301. RENEWABLE FUEL INFRASTRUCTURE DEVELOP-**
 15 **MENT.**

16 (a) DEFINITION.—For purposes of this subtitle—

17 (1) the term “renewable fuel” means E85
 18 biofuel, or B20;

19 (2) the term “biofuel” means fuel produced en-
 20 tirely from biological material and determined by the
 21 Department of Energy and the Environmental Pro-
 22 tection Agency to be commercially viable;

23 (3) the term “B20” means a mixture of bio-
 24 diesel and diesel fuel meeting the standard estab-
 25 lished by the American Society for Testing and Ma-

1 terials or under section 211(u) of the Clean Air Act
2 for fuel containing 20 percent biodiesel;

3 (4) the term “E85” means a fuel blend con-
4 taining 85 percent denatured ethanol and 15 percent
5 gasoline by volume;

6 (5) the term “flexible-fuel vehicle” means any
7 motor vehicle warranted by the manufacturer of the
8 vehicle as capable of operating on gasoline or diesel
9 fuel and on—

10 (A) E85; or

11 (B) B20; and

12 (6) the term “motor vehicle” means, as defined
13 in regulations promulgated by the Administrator of
14 the Environmental Protection Agency that are in ef-
15 fect on the date of enactment of this Act—

16 (A) a light-duty truck;

17 (B) a light-duty vehicle; or

18 (C) medium-duty passenger vehicle,

19 that is designed to be propelled by gasoline or diesel
20 fuel.

21 (b) INFRASTRUCTURE DEVELOPMENT GRANTS.—

22 The Secretary of Energy shall establish a program for
23 making grants for providing assistance to retail and
24 wholesale motor fuel dealers or other entities for the in-
25 stallation, replacement, or conversion of motor fuel storage

1 and dispensing infrastructure to be used exclusively to
2 store and dispense renewable fuel. Such infrastructure
3 may include equipment used in the blending, distribution,
4 and transport of such fuels.

5 (c) RETAIL TECHNICAL AND MARKETING ASSIST-
6 ANCE.—The Secretary of Energy shall enter into contracts
7 with entities with demonstrated experience in assisting re-
8 tail fueling stations in installing refueling systems and
9 marketing renewable fuels nationally, for the provision of
10 technical and marketing assistance to recipients of grants
11 under this section. Such assistance shall include—

12 (1) technical advice for compliance with applica-
13 ble Federal and State environmental requirements;

14 (2) help in identifying supply sources and se-
15 curing long-term contracts; and

16 (3) provision of public outreach, education, and
17 labeling materials.

18 (d) ALLOCATION.—The Secretary of Energy may re-
19 serve funds appropriated for carrying out this section to
20 support renewable fuels infrastructure development
21 projects with a cost of greater than \$1,000,000, that are
22 of national significance. The Secretary shall reserve funds
23 appropriated for the renewable fuels infrastructure devel-
24 opment grant program for technical and marketing assist-
25 ance described in subsection (c).

1 (e) SELECTION CRITERIA.—Not later than 12
2 months after the date of enactment of this Act, the Sec-
3 retary shall establish criteria for evaluating applications
4 for grants under this section that will maximize the avail-
5 ability and use of renewable fuel, and that will ensure that
6 renewable fuel is available across the country. Such cri-
7 teria shall provide for—

8 (1) consideration of the public demand for each
9 renewable fuel in a particular geographic area based
10 on State registration records showing the number of
11 flexible-fuel vehicles;

12 (2) consideration of the opportunity to create or
13 expand corridors of renewable fuel stations along
14 interstate or State highways;

15 (3) consideration of the experience of each ap-
16 plicant with previous, similar projects;

17 (4) consideration of population, number of flexi-
18 ble-fuel vehicles, number of retail fuel outlets, and
19 saturation of flexible-fuel vehicles; and

20 (5) priority consideration to applications that—

21 (A) are most likely to maximize displace-
22 ment of petroleum consumption, measured as a
23 total quantity and a percentage;

1 (B) are best able to incorporate existing
2 infrastructure while maximizing, to the extent
3 practicable, the use of renewable fuels; and

4 (C) demonstrate the greatest commitment
5 on the part of the applicant to ensure funding
6 for the proposed project and the greatest likeli-
7 hood that the project will be maintained or ex-
8 panded after Federal assistance under this sec-
9 tion is completed.

10 (f) COMBINED APPLICATIONS.—States and local gov-
11 ernment entities and nonprofit entities may apply for as-
12 sistance under this section on behalf of a group of retailers
13 within a certain geographic area, or to carry out regional
14 or multistate deployment projects. Any such application
15 shall certify the availability and details of a program to
16 match the Federal grant as required under subsection (g)
17 and list the retail locations that would receive the funds.

18 (g) LIMITATIONS.—Assistance provided under this
19 section shall not exceed—

20 (1) 33 percent of the estimated cost of the in-
21 stallation, replacement, or conversion of motor fuel
22 storage and dispensing infrastructure; or

23 (2) \$180,000 for a combination of equipment at
24 any one retail outlet location.

1 (h) OPERATION OF RENEWABLE FUEL STATIONS.—

2 The Secretary shall establish rules that set forth require-
3 ments for grant recipients under this section that include
4 providing to the public the renewable fuel, establishing a
5 marketing plan that informs consumers of the price and
6 availability of the renewable fuel, clearly labeling the dis-
7 pensers and related equipment, and providing periodic re-
8 ports on the status of the renewable fuel sales, the type
9 and amount of the renewable fuel dispensed at each loca-
10 tion, and the average price of such fuel.

11 (i) NOTIFICATION REQUIREMENTS.—Not later than
12 the date on which each renewable fuel station begins to
13 offer renewable fuel to the public, the grant recipient that
14 used grant funds to construct or upgrade such station
15 shall notify the Secretary of Energy of such opening. The
16 Secretary of Energy shall add each new renewable fuel
17 station to the renewable fuel station locator on its Website
18 when it receives notification under this subsection.

19 (j) DOUBLE COUNTING.—No person that receives a
20 credit under section 30C of the Internal Revenue Code of
21 1986 may receive assistance under this section.

22 (k) AUTHORIZATION OF APPROPRIATIONS.—There
23 are authorized to be appropriated to the Secretary of En-
24 ergy for carrying out this section \$200,000,000 for each
25 of the fiscal years 2008 through 2014.

1 (l) RESTRICTION.—No grant shall be provided under
 2 this section to a large, vertically integrated oil company.

3 **SEC. 9302. PROHIBITION ON FRANCHISE AGREEMENT RE-**
 4 **STRICTIONS RELATED TO RENEWABLE FUEL**
 5 **INFRASTRUCTURE.**

6 (a) IN GENERAL.—Title I of the Petroleum Mar-
 7 keting Practices Act (15 U.S.C. 2801 et seq.) is amended
 8 by adding at the end the following:

9 **“SEC. 107. PROHIBITION ON RESTRICTION OF INSTALLA-**
 10 **TION OF RENEWABLE FUEL PUMPS.**

11 “(a) DEFINITION.—In this section:

12 “(1) RENEWABLE FUEL.—The term ‘renewable
 13 fuel’ means any fuel—

14 “(A) at least 85 percent of the volume of
 15 which consists of ethanol; or

16 “(B) any mixture of biodiesel and diesel or
 17 renewable diesel (as defined in regulations
 18 adopted pursuant to section 211(o) of the Clean
 19 Air Act (40 CFR, Part 80)), determined with-
 20 out regard to any use of kerosene and con-
 21 taining at least 20 percent biodiesel or renew-
 22 able diesel.

23 “(2) FRANCHISE-RELATED DOCUMENT.—The
 24 term ‘franchise-related document’ means—

25 “(A) a franchise under this Act; and

1 “(B) any other contract or directive of a
2 franchisor relating to terms or conditions of the
3 sale of fuel by a franchisee.

4 “(b) PROHIBITIONS.—

5 “(1) IN GENERAL.—No franchise-related docu-
6 ment entered into or renewed on or after the date
7 of enactment of this section shall contain any provi-
8 sion allowing a franchisor to restrict the franchisee
9 or any affiliate of the franchisee from—

10 “(A) installing on the marketing premises
11 of the franchisee a renewable fuel pump or
12 tank, except that the franchisee’s franchisor
13 may restrict the installation of a tank on leased
14 marketing premises of such franchisor;

15 “(B) converting an existing tank or pump
16 on the marketing premises of the franchisee for
17 renewable fuel use, so long as such tank or
18 pump and the piping connecting them are ei-
19 ther warranted by the manufacturer or certified
20 by a recognized standards setting organization
21 to be suitable for use with such renewable fuel;

22 “(C) advertising (including through the
23 use of signage) the sale of any renewable fuel;

24 “(D) selling renewable fuel in any specified
25 area on the marketing premises of the

1 franchisee (including any area in which a name
2 or logo of a franchisor or any other entity ap-
3 pears);

4 “(E) purchasing renewable fuel from
5 sources other than the franchisor if the
6 franchisor does not offer its own renewable fuel
7 for sale by the franchisee;

8 “(F) listing renewable fuel availability or
9 prices, including on service station signs, fuel
10 dispensers, or light poles; or

11 “(G) allowing for payment of renewable
12 fuel with a credit card,

13 so long as such activities described in subparagraphs
14 (A) through (G) do not constitute mislabeling, mis-
15 branding, willful adulteration, or other trademark
16 violations by the franchisee.

17 “(2) EFFECT OF PROVISION.—Nothing in this
18 section shall be construed to preclude a franchisor
19 from requiring the franchisee to obtain reasonable
20 indemnification and insurance policies.

21 “(c) EXCEPTION TO 3-GRADE REQUIREMENT.—No
22 franchise-related document that requires that 3 grades of
23 gasoline be sold by the applicable franchisee shall prevent
24 the franchisee from selling an renewable fuel in lieu of
25 1, and only 1, grade of gasoline.”.

1 (b) ENFORCEMENT.—Section 105 of the Petroleum
 2 Marketing Practices Act (15 U.S.C. 2805) is amended by
 3 striking “102 or 103” each place it appears and inserting
 4 “102, 103, or 107”.

5 (c) CONFORMING AMENDMENTS.—

6 (1) IN GENERAL.—Section 101(13) of the Pe-
 7 troleum Marketing Practices Act (15 U.S.C.
 8 2801(13)) is amended by aligning the margin of
 9 subparagraph (C) with subparagraph (B).

10 (2) TABLE OF CONTENTS.—The table of con-
 11 tents of the Petroleum Marketing Practices Act (15
 12 U.S.C. 2801 note) is amended—

13 (A) by inserting after the item relating to
 14 section 106 the following:

“Sec. 107. Prohibition on restriction of installation of renewable fuel pumps.”;
 and

15 (B) by striking the item relating to section
 16 202 and inserting the following:

“Sec. 202. Automotive fuel rating testing and disclosure requirements.”.

17 **SEC. 9303. RENEWABLE FUEL DISPENSER REQUIREMENTS.**

18 (a) MARKET PENETRATION REPORTS.—The Sec-
 19 retary of Energy, in consultation with the Secretary of
 20 Transportation, shall determine and report to Congress
 21 annually on the market penetration for flexible-fuel vehi-
 22 cles in use within geographic regions to be established by
 23 the Secretary of Energy.

1 (b) DISPENSER FEASIBILITY STUDY.—Not later
2 than 24 months after the date of enactment of this Act,
3 the Secretary of Energy, in consultation with the Depart-
4 ment of Transportation, shall report to the Congress on
5 the feasibility of requiring motor fuel retailers to install
6 E-85 compatible dispensers and related systems at retail
7 fuel facilities in regions where flexible-fuel vehicle market
8 penetration has reached 15 percent of motor vehicles. In
9 conducting such study, the Secretary shall consider and
10 report on the following factors:

11 (1) The commercial availability of E-85 fuel
12 and the number of competing E-85 wholesale sup-
13 pliers in a given region.

14 (2) The level of financial assistance provided on
15 an annual basis by the Federal Government, State
16 governments, and nonprofit entities for the installa-
17 tion of E-85 compatible infrastructure.

18 (3) The number of retailers whose retail loca-
19 tions are unable to support more than 2 under-
20 ground storage tank dispensers.

21 (4) The expense incurred by retailers in the in-
22 stallation and sale of E-85 compatible dispensers
23 and related systems and any potential effects on the
24 price of motor vehicle fuel.

1 **SEC. 9304. PIPELINE FEASIBILITY STUDY.**

2 (a) IN GENERAL.—The Secretary of Energy, in con-
3 sultation with the Secretary of Transportation, shall con-
4 duct a study of the feasibility of the construction of dedi-
5 cated ethanol pipelines.

6 (b) FACTORS.—In conducting the study, the Sec-
7 retary shall consider—

8 (1) the quantity of ethanol production that
9 would make dedicated pipelines economically viable;

10 (2) existing or potential barriers to dedicated
11 ethanol pipelines, including technical, siting, financ-
12 ing, and regulatory barriers;

13 (3) market risk (including throughput risk) and
14 means of mitigating the risk;

15 (4) regulatory, financing, and siting options
16 that would mitigate risk in those areas and help en-
17 sure the construction of 1 or more dedicated ethanol
18 pipelines;

19 (5) financial incentives that may be necessary
20 for the construction of dedicated ethanol pipelines,
21 including the return on equity that sponsors of the
22 initial dedicated ethanol pipelines will require to in-
23 vest in the pipelines;

24 (6) technical factors that may compromise the
25 safe transportation of ethanol in pipelines, identi-

1 fying remedial and preventative measures to ensure
2 pipeline integrity; and

3 (7) such other factors as the Secretary con-
4 siders appropriate.

5 (c) REPORT.—Not later than 15 months after the
6 date of enactment of this Act, the Secretary shall submit
7 to Congress a report describing the results of the study
8 conducted under this section.

9 **SEC. 9305. STUDY OF ETHANOL-BLENDED GASOLINE WITH**
10 **GREATER LEVELS OF ETHANOL.**

11 (a) IN GENERAL.—The Administrator of the Envi-
12 ronmental Protection Agency, in cooperation with the Sec-
13 retary of Energy and the Secretary of Transportation, and
14 after providing notice and an opportunity for public com-
15 ment, shall conduct a study of the feasibility of widespread
16 utilization in the United States of ethanol blended gasoline
17 with levels of ethanol greater than 10 percent.

18 (b) STUDY.—The study under subsection (a) shall in-
19 clude—

20 (1) a review of production and infrastructure
21 constraints on increasing the consumption of eth-
22 anol;

23 (2) an evaluation of the economic, market, and
24 energy impacts of State and regional differences in
25 ethanol blends;

1 (3) an evaluation of the economic, market, and
2 energy impacts on gasoline retailers and consumers
3 of separate and distinctly labeled fuel storage facili-
4 ties and dispensers;

5 (4) an evaluation of the environmental impacts
6 of mid-level ethanol blends on evaporative and ex-
7 haust emissions from on-road, off-road and marine
8 engines, recreational boats, vehicles, and equipment;

9 (5) an evaluation of the impacts of mid-level
10 ethanol blends on the operation, durability, and per-
11 formance of on-road, off-road, and marine engines,
12 recreational boats, vehicles, and equipment; and

13 (6) an evaluation of the safety impacts of mid-
14 level ethanol blends on consumers that own and op-
15 erate off-road and marine engines, recreational
16 boats, vehicles, or equipment.

17 (c) REPORT.—Not later than 24 months after the
18 date of enactment of this Act, the Administrator shall sub-
19 mit to the Committee on Energy and Commerce of the
20 House of Representatives and the Committee on Environ-
21 ment and Public Works of the Senate a report describing
22 the results of the study conducted under this section.

23 (d) AUTHORIZATION OF APPROPRIATIONS.—There
24 are authorized to be appropriated to the Administrator

1 such sums as may be necessary for the completion of the
2 study required under this section.

3 **SEC. 9306. STUDY OF THE ADEQUACY OF RAILROAD TRANS-**
4 **PORTATION OF DOMESTICALLY-PRODUCED**
5 **RENEWABLE FUEL.**

6 (a) STUDY.—

7 (1) IN GENERAL.—The Secretary of Energy, in
8 consultation with the Secretary of Transportation,
9 shall conduct a study of the adequacy of railroad
10 transportation of domestically-produced renewable
11 fuel.

12 (2) COMPONENTS.—In conducting the study
13 under paragraph (1), the Secretary shall consider—

14 (A) the adequacy of, and appropriate loca-
15 tion for, tracks that have sufficient capacity,
16 and are in the appropriate condition, to move
17 the necessary quantities of domestically-pro-
18 duced renewable fuel;

19 (B) the adequacy of the supply of railroad
20 tank cars, locomotives, and rail crews to move
21 the necessary quantities of domestically-pro-
22 duced renewable fuel in a timely fashion;

23 (C)(i) the projected costs of moving the do-
24 mestically-produced renewable fuel using rail-
25 road transportation; and

1 (ii) the impact of the projected costs on
2 the marketability of the domestically-produced
3 renewable fuel;

4 (D) whether there is adequate railroad
5 competition to ensure—

6 (i) a fair price for the railroad trans-
7 portation of domestically-produced renew-
8 able fuel; and

9 (ii) acceptable levels of service for rail-
10 road transportation of domestically-pro-
11 duced renewable fuel;

12 (E) any rail infrastructure capital costs
13 that the railroads indicate should be paid by the
14 producers or distributors of domestically-pro-
15 duced renewable fuel;

16 (F) whether Federal agencies have ade-
17 quate legal authority to ensure a fair and rea-
18 sonable transportation price and acceptable lev-
19 els of service in cases in which the domestically-
20 produced renewable fuel source does not have
21 access to competitive rail service;

22 (G) whether Federal agencies have ade-
23 quate legal authority to address railroad service
24 problems that may be resulting in inadequate

1 supplies of domestically-produced renewable fuel
2 in any area of the United States; and

3 (H) any recommendations for any addi-
4 tional legal authorities for Federal agencies to
5 ensure the reliable railroad transportation of
6 adequate supplies of domestically-produced re-
7 newable fuel at reasonable prices.

8 (b) REPORT.—Not later than 180 days after the date
9 of enactment of this Act, the Secretary shall submit to
10 the Committee on Energy and Natural Resources of the
11 Senate and the Committee on Energy and Commerce of
12 the House of Representatives a report that describes the
13 results of the study conducted under subsection (a).

14 **SEC. 9307. STANDARD SPECIFICATIONS FOR BIODIESEL.**

15 Section 211 of the Clean Air Act (42 U.S.C. 7545)
16 is amended by redesignating subsection (s) as subsection
17 (t), redesignating subsection (r) (relating to conversion as-
18 sistance for cellulosic biomass, waste-derived ethanol, ap-
19 proved renewable fuels) as subsection (s) and by adding
20 the following new subsection at the end thereof:

21 “(u) STANDARD SPECIFICATIONS FOR BIODIESEL.—
22 Unless the American Society for Testing and Materials
23 has adopted a standard for diesel fuel containing 20 per-
24 cent biodiesel, not later than 1 year after the date of en-
25 actment of this subsection, the Administrator shall initiate

1 a rulemaking establishing a series of uniform per gallon
2 fuel standards for categories of fuels that contain bio-
3 diesel, including one standard for fuel containing 20 per-
4 cent biodiesel, and designate an identification number for
5 fuel meeting each standard in each such category so that
6 vehicle manufacturers are able to design engines to use
7 fuel meeting one or more of such standards. The Adminis-
8 trator shall finalize the standards under this subsection
9 18 months after the date of the enactment of this sub-
10 section.”.

11 **SEC. 9308. GRANTS FOR CELLULOSIC ETHANOL PRODUC-**
12 **TION.**

13 Subsection (s) of section 211 of the Clean Air Act
14 (as added by section 1512 of the Energy Policy Act of
15 2005) (and as redesignated by section 9307 of this Act),
16 relating to conversion assistance for cellulosic biomass,
17 waste-derived ethanol, and approved renewable fuels, is
18 amended as follows:

19 (1) By adding the following new subparagraphs
20 at the end of paragraph (3):

21 “(D) \$500,000,000 for fiscal year 2009.

22 “(E) \$500,000,000 for fiscal year 2010.”.

23 (2) By adding the following new paragraph at
24 the end thereof:

1 “(5) CRITERIA.—In awarding grants under this
2 section, the Secretary shall give priority to applica-
3 tions that promote feedstock diversity and the geo-
4 graphic dispersion of production facilities.”.

5 **SEC. 9309. CONSUMER EDUCATION CAMPAIGN RELATING**
6 **TO FLEXIBLE-FUEL VEHICLES.**

7 The Secretary of Transportation, in consultation with
8 the Secretary of Energy, shall carry out an education pro-
9 gram to inform consumers about which motor vehicles are
10 flexible-fuel vehicles and how to exercise their opportunity
11 to choose E85 or B20. As part of such program, the Sec-
12 retary of Transportation may coordinate with motor vehi-
13 cle manufacturers to notify owners of flexible-fuel vehicles
14 of locations where E85 and B20 are sold in their area.

15 **SEC. 9310. REVIEW OF NEW RENEWABLE FUELS OR NEW**
16 **RENEWABLE FUEL ADDITIVES.**

17 Notwithstanding any other provision of law, a waiver
18 under section 211(f)(4) of the Clean Air Act for any re-
19 newable fuel or renewable fuel additive shall not be consid-
20 ered granted unless the Administrator of the Environment
21 Protection Agency, following a public notice and comment
22 period, takes final action granting the application for a
23 waiver based on an application of the section 211(f)(4)
24 standards and criteria with respect to emissions control
25 devices or systems and vehicle emissions standards to on-

1 road and non-road engines and vehicles. The Adminis-
2 trator shall take final action on an application for a waiver
3 no later than 270 days after the Administrator receives
4 the application.

5 **SEC. 9311. DOMESTIC MANUFACTURING CONVERSION**
6 **GRANT PROGRAM.**

7 Section 712 of the Energy Policy Act of 2005 (42
8 U.S.C. 16062) is amended—

9 (1) in subsection (a)—

10 (A) by inserting “, flexible-fuel,” after
11 “production of efficient hybrid”; and

12 (B) by adding at the end the following:

13 “Priority shall be given to the refurbishment or
14 retooling of manufacturing facilities that have
15 recently ceased operation or will cease operation
16 in the near future.”; and

17 (2) by striking subsection (b) and inserting the
18 following:

19 “(b) COORDINATION WITH STATE AND LOCAL PRO-
20 GRAMS.—The Secretary may coordinate implementation of
21 this section with State and local programs designed to ac-
22 complish similar goals, including the retention and retrain-
23 ing of skilled workers from the such manufacturing facili-
24 ties, including by establishing matching grant arrange-
25 ments.

1 “(c) AUTHORIZATION OF APPROPRIATIONS.—There
2 are authorized to be appropriated to the Secretary such
3 sums as may be necessary to carry out this section.”.

4 **SEC. 9312. CELLULOSIC ETHANOL AND BIOFUELS RE-**
5 **SEARCH.**

6 There are authorized to be appropriated to the Sec-
7 retary of Energy \$50,000,000 for fiscal year 2008, to re-
8 main available until expended, for cellulosic ethanol and
9 biofuels research and development grants to 10 entities
10 from among 1890 land grant colleges, Historically Black
11 Colleges or Universities, Tribal serving institutions, or
12 Hispanic serving institutions, selected by the Secretary of
13 Energy to receive a grant under this section through a
14 peer-reviewed competitive process. The selected entities
15 shall then collaborate with one of the Department of Ener-
16 gy’s Office of Science Bioenergy Research Centers.

17 **SEC. 9313. FEDERAL FLEET FUELING CENTERS.**

18 (a) IN GENERAL.—Not later than January 1, 2010,
19 the head of each Federal agency shall install at least 1
20 renewable fuel pump at each Federal fleet fueling center
21 in the United States under the jurisdiction of the head
22 of the Federal agency.

23 (b) REPORT.—Not later than October 31 of the first
24 calendar year beginning after the date of the enactment
25 of this Act, and each October 31 thereafter, the President

1 shall submit to Congress a report that describes the
2 progress toward complying with subsection (a), including
3 identifying—

4 (1) the number of Federal fleet fueling centers
5 that contain at least 1 renewable fuel pump; and

6 (2) the number of Federal fleet fueling centers
7 that do not contain any renewable fuel pumps.

8 (c) AUTHORIZATION OF APPROPRIATIONS.—There
9 are authorized to be appropriated such sums as are nec-
10 essary to carry out this section.

11 **SEC. 9314. STUDY OF IMPACT OF INCREASED RENEWABLE**
12 **FUEL USE.**

13 (a) IN GENERAL.—The Secretary of Energy shall,
14 after consultation with the Administrator of the Environ-
15 mental Protection Agency, the Administrator of the En-
16 ergy Information Administration, and the Secretary of Ag-
17 riculture, conduct a study to assess the impact of in-
18 creased use of renewable fuels on the United States econ-
19 omy. The Secretary shall enter into an arrangement with
20 the National Academy of Sciences to provide peer review
21 of the study.

22 (b) STUDY ELEMENTS.—The study shall analyze, in
23 terms of renewable fuels, the following:

24 (1) The impact of the use of renewable fuels on
25 the energy security of the United States.

1 (2) The impact of the use of renewable fuels on
2 public health and the environment, including air and
3 water quality.

4 (3) The impact of renewable fuels on the infra-
5 structure of the United States, including the deliver-
6 ability of materials, goods, and products other than
7 alternative fuels.

8 (4) The impact of the use of renewable fuels on
9 job creation, the price and supply of agricultural
10 commodities, and rural economic development.

11 (c) PARTICIPATION.—In conducting the study under
12 this section, the Secretary and other agencies shall seek
13 the participation, and consider the input, of the following:

14 (1) Producers of feed grains.

15 (2) Producers of livestock, poultry, and pork
16 products.

17 (3) Producers of energy.

18 (4) Individuals and entities interested in issues
19 relating to conservation, the environment, and nutri-
20 tion, and users of renewable fuels.

21 (d) REPORT.—The Secretary shall submit a report
22 to the Congress containing the initial results of the study
23 under this section not later than 2 years after enactment
24 of this Act and subsequently supplement and update such
25 report every 3 years thereafter.

1 **SEC. 9315. GRANTS FOR RENEWABLE FUEL PRODUCTION**
2 **RESEARCH AND DEVELOPMENT IN CERTAIN**
3 **STATES.**

4 (a) IN GENERAL.—The Secretary shall provide
5 grants to eligible entities to conduct research into, and de-
6 velop and implement, renewable fuel production tech-
7 nologies in States with low rates of ethanol production,
8 including low rates of production of cellulosic biomass eth-
9 anol, as determined by the Secretary.

10 (b) ELIGIBILITY.—To be eligible to receive a grant
11 under the section, an entity shall—

12 (1)(A) be an institution of higher education (as
13 defined in section 2 of the Energy Policy Act of
14 2005 (42 U.S.C. 15801)) located in a State de-
15 scribed in subsection (a);

16 (B) be an institution—

17 (i) referred to in section 532 of the Equity
18 in Educational Land-Grant Status Act of 1994
19 (Public Law 103–382; 7 U.S.C. 301 note);

20 (ii) that is eligible for a grant under the
21 Tribally Controlled College or University Assist-
22 ance Act of 1978 (25 U.S.C. 1801 et seq.), in-
23 cluding Dine College; or

24 (iii) that is eligible for a grant under the
25 Navajo Community College Act (25 U.S.C.
26 640a et seq.); or

1 (C) be a consortium of such institutions of
2 higher education, industry, State agencies, Indian
3 tribal agencies, or local government agencies located
4 in the State; and

5 (2) have proven experience and capabilities with
6 relevant technologies.

7 (c) AUTHORIZATION OF APPROPRIATIONS.—There
8 are authorized to be appropriated to carry out this section
9 \$25,000,000 for each of fiscal years 2008 through 2010.

10 **SEC. 9316. STUDY OF EFFECT OF OIL PRICES.**

11 The Secretary of Energy shall conduct a study to re-
12 view the anticipated effects on renewable fuels production
13 if oil were priced no lower than \$40 per barrel. The Sec-
14 retary shall report the findings of such study to Congress
15 by December 31, 2008.

16 **SEC. 9317. BIODIESEL AS ALTERNATIVE FUEL FOR CAFÉ**
17 **PURPOSES.**

18 Section 32901(a) of title 49, United States Code, is
19 amended—

20 (1) in paragraph (1), by redesignating subpara-
21 graphs (J) and (K) as subparagraphs (K) and (L),
22 respectively, and inserting after subparagraph (I)
23 the following:

24 “(J) B20 biodiesel blend;” and

1 (2) by redesignating paragraphs (7) through
2 (16) as paragraphs (9) through (18), respectively,
3 and insert after paragraph (6) the following:

4 “(7) ‘biodiesel’ means the monoalkyl esters of
5 long chain fatty acids derived from plant or animal
6 matter which meet—

7 “(A) the registration requirements for
8 fuels and fuel additives established by the Envi-
9 ronmental Protection Agency under section 211
10 of the Clean Air Act (42 U.S.C. 7545); and

11 “(B) the requirements of the American So-
12 ciety of Testing and Materials D6751.

13 “(8) ‘B20 biodiesel blend’ means a mixture of
14 biodiesel and diesel fuel approximately 20 percent of
15 the content of which is biodiesel, and commonly
16 known as ‘B20’.”.

17 **PART 2—UNITED STATES-ISRAEL ENERGY**
18 **COOPERATION**

19 **SEC. 9321. SHORT TITLE.**

20 This part may be cited as the “United States-Israel
21 Energy Cooperation Act”.

22 **SEC. 9322. FINDINGS.**

23 Congress finds that—

1 (1) it is in the highest national security inter-
2 ests of the United States to ensure secure access to
3 reliable energy sources;

4 (2) the United States relies heavily on the for-
5 eign supply of crude oil to meet the energy needs of
6 the United States, currently importing 58 percent of
7 the total oil requirements of the United States, of
8 which 45 percent comes from member states of the
9 Organization of Petroleum Exporting Countries
10 (OPEC);

11 (3) revenues from the sale of oil by some of
12 these countries directly or indirectly provide funding
13 for terrorism and propaganda hostile to the values
14 of the United States and the West;

15 (4) in the past, these countries have manipu-
16 lated the dependence of the United States on the oil
17 supplies of these countries to exert undue influence
18 on United States policy, as during the embargo of
19 OPEC during 1973 on the sale of oil to the United
20 States, which became a major factor in the ensuing
21 recession;

22 (5) research by the Energy Information Admin-
23 istration of the Department of Energy has shown
24 that the dependence of the United States on foreign

1 oil will increase by 33 percent over the next 20
2 years;

3 (6) a rise in the price of imported oil sufficient
4 to increase gasoline prices by 10 cents per gallon at
5 the pump would result in an additional outflow of
6 \$18,000,000,000 from the United States to oil-ex-
7 porting nations;

8 (7) for economic and national security reasons,
9 the United States should reduce, as soon as prac-
10 ticable, the dependence of the United States on na-
11 tions that do not share the interests and values of
12 the United States;

13 (8) the State of Israel has been a steadfast ally
14 and a close friend of the United States since the cre-
15 ation of Israel in 1948;

16 (9) like the United States, Israel is a democracy
17 that holds civil rights and liberties in the highest re-
18 gard and is a proponent of the democratic values of
19 peace, freedom, and justice;

20 (10) cooperation between the United States and
21 Israel on such projects as the development of the
22 Arrow Missile has resulted in mutual benefits to
23 United States and Israeli security;

24 (11) the special relationship between Israel and
25 the United States has been and continues to be

1 manifested in a variety of jointly-funded cooperative
2 programs in the field of scientific research and de-
3 velopment, such as—

4 (A) the United States-Israel Binational
5 Science Foundation (BSF);

6 (B) the Israel-United States Binational
7 Agricultural Research and Development Fund
8 (BARD); and

9 (C) the Israel-United States Binational In-
10 dustrial Research and Development (BIRD)
11 Foundation;

12 (12) these programs, supported by the match-
13 ing contributions from the Government of Israel and
14 the Government of the United States and directed
15 by key scientists and academics from both countries,
16 have made possible many scientific breakthroughs in
17 the fields of life sciences, medicine, bioengineering,
18 agriculture, biotechnology, communications, and oth-
19 ers;

20 (13) on February 1, 1996, United States Sec-
21 retary of Energy Hazel R. O’Leary and Israeli Min-
22 ister of Energy and Infrastructure Gonen Segev
23 signed the Agreement Between the Department of
24 Energy of the United States of America and the
25 Ministry of Energy and Infrastructure of Israel Con-

1 cerning Energy Cooperation, to establish a frame-
2 work for collaboration between the United States
3 and Israel in energy research and development ac-
4 tivities;

5 (14) the United States and Israeli governments
6 should promote cooperation in a broad range of
7 projects designed to enhance supplies of nonpetro-
8 leum energy for both countries, and to provide for
9 cutting edge research in each country;

10 (15) Israeli scientists and researchers have long
11 been at the forefront of research and development in
12 the field of alternative renewable energy sources;

13 (16) many of the top corporations of the world
14 have recognized the technological and scientific ex-
15 pertise of Israel by locating important research and
16 development facilities in Israel;

17 (17) among the technological breakthroughs
18 made by Israeli scientists and researchers in the
19 field of alternative, renewable energy sources are—

20 (A) the development of a cathode that uses
21 hexavalent iron salts that accept 3 electrons per
22 ion and enable rechargeable batteries to provide
23 3 times as much electricity as existing recharge-
24 able batteries;

1 (B) the development of a technique that
2 vastly increases the efficiency of using solar en-
3 ergy to generate hydrogen for use in energy
4 cells; and

5 (C) the development of a novel membrane
6 used in new and powerful direct-oxidant fuel
7 cells that is capable of competing favorably with
8 hydrogen fuel cells and traditional internal com-
9 bustion engines; and

10 (18) cooperation between the United States and
11 Israel in the field of research and development of al-
12 ternative renewable energy sources would be in the
13 interests of both countries, and both countries stand
14 to gain much from such cooperation.

15 **SEC. 9323. GRANT PROGRAM.**

16 (a) **AUTHORITY.**—Pursuant to the responsibilities de-
17 scribed in section 102(10), (14), and (17) of the Depart-
18 ment of Energy Organization Act (42 U.S.C. 7112(10),
19 (14), and (17)) and section 103(9) of the Energy Reorga-
20 nization Act of 1974 (42 U.S.C. 5813(9)), the Secretary,
21 in consultation with the BIRD or BSF, shall award grants
22 to eligible entities.

23 (b) **APPLICATION.**—

24 (1) **SUBMISSION OF APPLICATIONS.**—To receive
25 a grant under this section, an eligible entity shall

1 submit an application to the Secretary containing
2 such information and assurances as the Secretary, in
3 consultation with the BIRD or BSF, may require.

4 (2) SELECTION OF ELIGIBLE ENTITIES.—The
5 Secretary, in consultation with the Directors of the
6 BIRD and BSF, may review any application sub-
7 mitted by any eligible entity and select any eligible
8 entity meeting criteria established by the Secretary,
9 in consultation with the Advisory Board, for a grant
10 under this section.

11 (c) AMOUNT OF GRANT.—The amount of each grant
12 awarded for a fiscal year under this section shall be deter-
13 mined by the Secretary, in consultation with the BIRD
14 or BSF.

15 (d) RECOUPMENT.—

16 (1) IN GENERAL.—Not later than 180 days
17 after the date of enactment of this Act, the Sec-
18 retary shall establish procedures and criteria for
19 recoupment in connection with any eligible project
20 carried out by an eligible entity that receives a grant
21 under this section, which has led to the development
22 of a product or process which is marketed or used.

23 (2) AMOUNT REQUIRED.—

24 (A) Except as provided in subparagraph

25 (B), such recoupment shall be required as a

1 condition for award and be proportional to the
2 Federal share of the costs of such project, and
3 shall be derived from the proceeds of royalties
4 or licensing fees received in connection with
5 such product or process.

6 (B) In the case where a product or process
7 is used by the recipient of a grant under this
8 section for the production and sale of its own
9 products or processes, the recoupment shall
10 consist of a payment equivalent to the payment
11 which would be made under subparagraph (A).

12 (3) WAIVER.—The Secretary may at any time
13 waive or defer all or some of the recoupment re-
14 quirements of this subsection as necessary, depend-
15 ing on—

16 (A) the commercial competitiveness of the
17 entity or entities developing or using the prod-
18 uct or process;

19 (B) the profitability of the project; and

20 (C) the commercial viability of the product
21 or process utilized.

22 (e) PRIVATE FUNDS.—The Secretary may accept
23 contributions of funds from private sources to carry out
24 this part.

1 (f) OFFICE OF ENERGY EFFICIENCY AND RENEW-
2 ABLE ENERGY.—The Secretary shall carry out this sec-
3 tion through the existing programs at the Office of Energy
4 Efficiency and Renewable Energy.

5 (g) REPORT.—Not later than 180 days after receiv-
6 ing a grant under this section, each recipient shall submit
7 a report to the Secretary—

8 (1) documenting how the recipient used the
9 grant funds; and

10 (2) evaluating the level of success of each
11 project funded by the grant.

12 **SEC. 9324. INTERNATIONAL ENERGY ADVISORY BOARD.**

13 (a) ESTABLISHMENT.—There is established in the
14 Department of Energy an International Energy Advisory
15 Board.

16 (b) DUTIES.—The Advisory Board shall advise the
17 Secretary on—

18 (1) criteria for the recipients of grants awarded
19 under section 9323(a);

20 (2) the total amount of grant money to be
21 awarded to all grantees selected by the Secretary, in
22 consultation with the BIRD; and

23 (3) the total amount of grant money to be
24 awarded to all grantees selected by the Secretary, in
25 consultation with the BSF, for each fiscal year.

1 (c) MEMBERSHIP.—

2 (1) COMPOSITION.—The Advisory Board shall
3 be composed of—

4 (A) 1 member appointed by the Secretary
5 of Commerce;

6 (B) 1 member appointed by the Secretary
7 of Energy; and

8 (C) 2 members who shall be Israeli citi-
9 zens, appointed by the Secretary of Energy
10 after consultation with appropriate officials in
11 the Israeli Government.

12 (2) DEADLINE FOR APPOINTMENTS.—The ini-
13 tial appointments under paragraph (1) shall be
14 made not later than 60 days after the date of enact-
15 ment of this Act.

16 (3) TERM.—Each member of the Advisory
17 Board shall be appointed for a term of 4 years.

18 (4) VACANCIES.—A vacancy on the Advisory
19 Board shall be filled in the manner in which the
20 original appointment was made.

21 (5) BASIC PAY.—

22 (A) COMPENSATION.—A member of the
23 Advisory Board shall serve without pay.

24 (B) TRAVEL EXPENSES.—Each member of
25 the Advisory Board shall receive travel ex-

1 penses, including per diem in lieu of subsist-
2 ence, in accordance with applicable provisions of
3 subchapter I of chapter 57 of title 5, United
4 States Code.

5 (6) QUORUM.—Three members of the Advisory
6 Board shall constitute a quorum.

7 (7) CHAIRPERSON.—The Chairperson of the
8 Advisory Board shall be designated by the Secretary
9 of Energy at the time of the appointment.

10 (8) MEETINGS.—The Advisory Board shall
11 meet at least once annually at the call of the Chair-
12 person.

13 (d) TERMINATION.—Section 14(a)(2)(B) of the Fed-
14 eral Advisory Committee Act (5 U.S.C. App.) shall not
15 apply to the Advisory Board.

16 **SEC. 9325. DEFINITIONS.**

17 In this part:

18 (1) ADVISORY BOARD.—The term “Advisory
19 Board” means the International Energy Advisory
20 Board established by section 9324(a).

21 (2) BIRD.—The term “BIRD” means the
22 Israel-United States Binational Industrial Research
23 and Development Foundation.

24 (3) BSF.—The term “BSF” means the United
25 States-Israel Binational Science Foundation.

1 (4) ELIGIBLE ENTITY.—The term “eligible enti-
2 ty” means a joint venture comprised of both Israeli
3 and United States private business entities or a joint
4 venture comprised of both Israeli academic persons
5 (who reside and work in Israel) and United States
6 academic persons, that—

7 (A) carries out an eligible project; and

8 (B) is selected by the Secretary, in con-
9 sultation with the BIRD or BSF, using the cri-
10 teria established by the Secretary, in consulta-
11 tion with the Advisory Board.

12 (5) ELIGIBLE PROJECT.—The term “eligible
13 project” means a project to encourage cooperation
14 between the United States and Israel on research,
15 development, or commercialization of alternative en-
16 ergy, improved energy efficiency, or renewable en-
17 ergy sources.

18 (6) SECRETARY.—The term “Secretary” means
19 the Secretary of Energy, acting through the Assist-
20 ant Secretary of Energy for Energy Efficiency and
21 Renewable Energy.

22 **SEC. 9326. TERMINATION.**

23 The grant program authorized under section 9323
24 and the Advisory Board shall terminate upon the expira-

tion of the 7-year period which begins on the date of the enactment of this Act.

SEC. 9327. AUTHORIZATION OF APPROPRIATIONS.

The Secretary is authorized to expend not more than \$20,000,000 to carry out this part for each of fiscal years 2008 through 2014 from funds previously authorized to the Office of Energy Efficiency and Renewable Energy.

SEC. 9328. CONSTITUTIONAL AUTHORITY.

The Constitutional authority on which this part rests is the power of Congress to regulate commerce with foreign nations as enumerated in Article I, Section 8 of the United States Constitution.

**Subtitle E—Advanced Plug-In
Hybrid Vehicles and Components**

SEC. 9401. ADVANCED BATTERY LOAN GUARANTEE PROGRAM.

(a) ESTABLISHMENT OF PROGRAM.—The Secretary of Energy shall establish a program to provide guarantees of loans by private institutions for the construction of facilities for the manufacture of advanced vehicle batteries and battery systems that are developed and produced in the United States, including advanced lithium ion batteries and hybrid electrical system and component manufacturers and software designers.

1 (b) REQUIREMENTS.—The Secretary may provide a
2 loan guarantee under subsection (a) to an applicant if—

3 (1) without a loan guarantee, credit is not
4 available to the applicant under reasonable terms or
5 conditions sufficient to finance the construction of a
6 facility described in subsection (a);

7 (2) the prospective earning power of the appli-
8 cant and the character and value of the security
9 pledged provide a reasonable assurance of repayment
10 of the loan to be guaranteed in accordance with the
11 terms of the loan; and

12 (3) the loan bears interest at a rate determined
13 by the Secretary to be reasonable, taking into ac-
14 count the current average yield on outstanding obli-
15 gations of the United States with remaining periods
16 of maturity comparable to the maturity of the loan.

17 (c) CRITERIA.—In selecting recipients of loan guar-
18 antees from among applicants, the Secretary shall give
19 preference to proposals that—

20 (1) meet all applicable Federal and State per-
21 mitting requirements;

22 (2) are most likely to be successful; and

23 (3) are located in local markets that have the
24 greatest need for the facility.

1 (d) MATURITY.—A loan guaranteed under subsection
2 (a) shall have a maturity of not more than 20 years.

3 (e) TERMS AND CONDITIONS.—The loan agreement
4 for a loan guaranteed under subsection (a) shall provide
5 that no provision of the loan agreement may be amended
6 or waived without the consent of the Secretary.

7 (f) ASSURANCE OF REPAYMENT.—The Secretary
8 shall require that an applicant for a loan guarantee under
9 subsection (a) provide an assurance of repayment in the
10 form of a performance bond, insurance, collateral, or other
11 means acceptable to the Secretary in an amount equal to
12 not less than 20 percent of the amount of the loan.

13 (g) GUARANTEE FEE.—The recipient of a loan guar-
14 antee under subsection (a) shall pay the Secretary an
15 amount determined by the Secretary to be sufficient to
16 cover the administrative costs of the Secretary relating to
17 the loan guarantee.

18 (h) FULL FAITH AND CREDIT.—The full faith and
19 credit of the United States is pledged to the payment of
20 all guarantees made under this section. Any such guar-
21 antee made by the Secretary shall be conclusive evidence
22 of the eligibility of the loan for the guarantee with respect
23 to principal and interest. The validity of the guarantee
24 shall be incontestable in the hands of a holder of the guar-
25 anteed loan.

1 (i) REPORTS.—Until each guaranteed loan under this
2 section has been repaid in full, the Secretary shall annu-
3 ally submit to Congress a report on the activities of the
4 Secretary under this section.

5 (j) AUTHORIZATION OF APPROPRIATIONS.—There
6 are authorized to be appropriated such sums as are nec-
7 essary to carry out this section.

8 (k) TERMINATION OF AUTHORITY.—The authority of
9 the Secretary to issue a loan guarantee under subsection
10 (a) terminates on the date that is 10 years after the date
11 of enactment of this Act.

12 **SEC. 9402. DOMESTIC MANUFACTURING CONVERSION**
13 **GRANT PROGRAM.**

14 Section 712 of the Energy Policy Act of 2005 (42
15 U.S.C. 16062) is amended—

16 (1) in subsection (a)—

17 (A) by inserting “and components thereof”
18 after “sales of efficient hybrid and advanced
19 diesel vehicles”;

20 (B) by inserting “and hybrid component
21 manufacturers” after “grants to automobile
22 manufacturers”;

23 (C) by inserting “, plug-in electric hybrid,”
24 after “production of efficient hybrid”;

1 (D) by inserting “and suppliers” after
2 “automobile manufacturers”; and

3 (E) by adding at the end the following:
4 “Priority shall be given to the refurbishment or
5 retooling of manufacturing facilities that have
6 recently ceased operation or will cease operation
7 in the near future.”; and

8 (2) by striking subsection (b) and inserting the
9 following:

10 “(b) COORDINATION WITH STATE AND LOCAL PRO-
11 GRAMS.—The Secretary may coordinate implementation of
12 this section with State and local programs designed to ac-
13 complish similar goals, including the retention and retrain-
14 ing of skilled workers from the such manufacturing facili-
15 ties, including by establishing matching grant arrange-
16 ments.

17 “(c) AUTHORIZATION OF APPROPRIATIONS.—There
18 are authorized to be appropriated to the Secretary such
19 sums as may be necessary to carry out this section.”.

20 **SEC. 9403. PLUG-IN HYBRID VEHICLE PROGRAM.**

21 (a) PLUG-IN ELECTRIC DRIVE VEHICLE PRO-
22 GRAM.—

23 (1) ESTABLISHMENT.—The Secretary of En-
24 ergy (in this section referred to as the “Secretary”)
25 shall establish a competitive program to provide

1 grants on a cost-shared basis to State governments,
2 local governments, metropolitan transportation au-
3 thorities, air pollution control districts, private or
4 nonprofit entities or combinations thereof, to carry
5 out a project or projects to encourage the use of
6 plug-in electric drive vehicles or other emerging elec-
7 tric vehicle technologies, as determined by the Sec-
8 retary.

9 (2) ADMINISTRATION.—The Secretary shall es-
10 tablish requirements for applications for grants
11 under this section, including reporting of data to be
12 summarized for dissemination to the Department,
13 other grantees, and the public, including vehicle and
14 component performance and vehicle and component
15 life cycle costs.

16 (3) SELECTION CRITERIA.—

17 (A) PRIORITY.—When making awards
18 under this subsection, the Secretary shall give
19 priority consideration to applications that en-
20 courage early widespread utilization of such ve-
21 hicles and are likely to make a significant con-
22 tribution to the advancement of the production
23 of such vehicles in the United States.

24 (B) SCOPE OF PROGRAMS.—When making
25 awards under this subsection, the Secretary

1 shall ensure that the programs will maximize
2 diversity in applications, manufacturers, end-
3 uses and vehicle control systems.

4 (4) AUTHORIZATIONS OF APPROPRIATIONS.—

5 There are authorized to be appropriated to the Sec-
6 retary to carry out the program under this sub-
7 section, such sums as may be necessary.

8 (5) CERTAIN APPLICANTS.—A battery manufac-
9 turer that proposes to supply to an applicant for a
10 grant under this section a battery with a capacity of
11 greater than 1 kilowatt-hour for use in a plug-in
12 electric drive vehicle shall—

13 (A) ensure that the applicant includes in
14 the application a description of the price of the
15 battery per kilowatt hour;

16 (B) on approval by the Secretary of the
17 application, publish, or permit the Secretary to
18 publish, the price described in subparagraph
19 (A); and

20 (C) for any order received by the battery
21 manufacturer for at least 1,000 batteries, offer
22 batteries at that price.

23 (b) ELECTRIC DRIVE EDUCATION PROGRAM.—

1 (1) IN GENERAL.—The Secretary shall develop
2 a nationwide electric drive transportation education
3 program under which the Secretary shall provide—

4 (A) teaching materials to secondary schools
5 and high schools; and

6 (B) assistance for programs relating to
7 electric drive system and component engineer-
8 ing to institutions of higher education.

9 (2) ELECTRIC VEHICLE COMPETITION.—The
10 program established under paragraph (1) shall in-
11 clude a plug-in hybrid electric vehicle competition for
12 institutions of higher education, which shall be
13 known as the “Dr. Andrew Frank Plug-In Hybrid
14 Electric Vehicle Competition”.

15 (3) ENGINEERS.—In carrying out the program
16 established under paragraph (1), the Secretary shall
17 provide financial assistance to institutions of higher
18 education to create new, or support existing, degree
19 programs to ensure the availability of trained elec-
20 trical and mechanical engineers with the skills nec-
21 essary for the advancement of—

22 (A) plug-in electric drive vehicles; and

23 (B) other forms of electric drive vehicles.

24 (4) AUTHORIZATION OF APPROPRIATIONS.—

25 There are authorized to be appropriated to the Sec-

1 retary to carry out this subsection such sums as may
2 be necessary.

3 **SEC. 9404. PLUG-IN HYBRID DEMONSTRATION VEHICLES.**

4 (a) IN GENERAL.—The Secretary of Energy shall es-
5 tablish a program to make grants to owners of domestic
6 motor vehicle manufacturing or production facilities for
7 the production of plug-in hybrid electric motors or conver-
8 sion modules to be used as electricity storage capacity for
9 utilities.

10 (b) PROGRAMS.—The Secretary of Energy shall es-
11 tablish programs to determine how to best integrate plug-
12 in hybrid vehicles into the electric power grid and into the
13 overall electricity infrastructure. These programs shall be
14 conducted in 5 separate regions across the United States
15 at the discretion of the Secretary.

16 (c) PILOT PROGRAMS.—The Secretary shall establish
17 during the first 6 months of 2008, with other govern-
18 mental entities, no less than 5 separate pilot programs to
19 convert at least 1000 vehicles in each program to plug-
20 hybrid electric vehicles.

21 (d) FEDERAL CONTRIBUTION.—The Department of
22 Energy shall contribute up to 50 percent of the cost of
23 conversion modules.

1 (e) INSTALLATION.—Installations of electricity stor-
 2 age devices shall be undertaken by trained and certified
 3 mechanics.

4 (f) MONITORING.—The Secretary of Energy shall re-
 5 quire the monitoring of reliability, efficiency, breakeven
 6 costs, and customer satisfaction for a period of 3 years.

7 (g) AUTHORIZATION OF APPROPRIATIONS.—There
 8 are authorized to be appropriated to the Secretary such
 9 sums as may be necessary to carry out this section.

10 **SEC. 9405. INCENTIVE FOR FEDERAL AND STATE FLEETS**
 11 **FOR MEDIUM AND HEAVY DUTY HYBRIDS.**

12 Section 301 of the Energy Policy Act of 1992 (42
 13 U.S.C. 13211) is amended—

14 (1) in paragraph (3), by striking “or a dual
 15 fueled vehicle” and inserting “, a dual fueled vehicle,
 16 or a medium or heavy duty vehicle that is a hybrid
 17 vehicle”;

18 (2) by redesignating paragraphs (11), (12),
 19 (13), and (14) as paragraphs (12), (14), (15), and
 20 (16), respectively;

21 (3) by inserting after paragraph (10) the fol-
 22 lowing new paragraph:

23 “(11) the term ‘hybrid vehicle’ means a vehicle
 24 powered both by a diesel or gasoline engine and an

1 electric motor or hydraulic energy storage device
2 that is recharged as the vehicle operates;” and

3 (4) by inserting after paragraph (12) (as so re-
4 designated by paragraph (2) of this section) the fol-
5 lowing new paragraph:

6 “(13) the term ‘medium or heavy duty vehicle’
7 means a vehicle that—

8 “(A) in the case of a medium duty vehicle,
9 has a gross vehicle weight rating of more than
10 8,500 pounds but not more than 14,000
11 pounds; and

12 “(B) in the case of a heavy duty vehicle,
13 has a gross vehicle weight rating of more than
14 14,000 pounds;”.

15 **SEC. 9406. INCLUSION OF ELECTRIC DRIVE IN ENERGY**
16 **POLICY ACT OF 1992.**

17 Section 508 of the Energy Policy Act of 1992 (42
18 U.S.C. 13258) is amended—

19 (1) by striking “The Secretary” in subsection
20 (a) and inserting “(1) The Secretary”; and

21 (2) by adding at the end of subsection (a) the
22 following:

23 “(2) Not later than January 31, 2009, the Secretary
24 shall allocate credit in an amount to be determined by the
25 Secretary for acquisition of—

1 “(A) a hybrid electric vehicle;
2 “(B) a plug-in hybrid electric vehicle;
3 “(C) a fuel cell electric vehicle;
4 “(D) a neighborhood electric vehicle; or
5 “(E) a medium-duty or heavy-duty electric, hy-
6 brid electric, hybrid hydraulic, or plug-in hybrid elec-
7 tric vehicle.”; and

8 (3) by adding at the end the following:

9 “(e) DEFINITIONS.—In this section:

10 “(1) FUEL CELL ELECTRIC VEHICLE.—The
11 term ‘fuel cell electric vehicle’ means an on-road or
12 nonroad vehicle that uses a fuel cell (as defined in
13 section 803 of the Spark M. Matsunaga Hydrogen
14 Research, Development, and Demonstration Act of
15 2005 (42 U.S.C. 16152).

16 “(2) HYBRID ELECTRIC VEHICLE.—The term
17 ‘hybrid electric vehicle’ means a new qualified hybrid
18 motor vehicle (as defined in section 30B(d)(3) of the
19 Internal Revenue Code of 1986).

20 “(3) MEDIUM-DUTY OR HEAVY-DUTY ELECTRIC,
21 HYBRID ELECTRIC, OR PLUG-IN HYBRID ELECTRIC
22 VEHICLE.—The term ‘medium-duty or heavy-duty
23 electric, hybrid electric, or plug-in hybrid electric ve-
24 hicle’ is an electric, hybrid electric, or plug-in hybrid

1 electric motor vehicle greater than 8,501 pounds
2 gross vehicle rating.

3 “(4) NEIGHBORHOOD ELECTRIC VEHICLE.—

4 The term ‘neighborhood electric vehicle’ means a 4-
5 wheeled on-road or nonroad vehicle, with a top at-
6 tainable speed in 1 mile of more than 20 mph and
7 not more than 25 mph on a paved level surface, that
8 is propelled by an electric motor and on board, re-
9 chargeable energy storage system that is recharge-
10 able using an off-board source of electricity.

11 “(5) PLUG-IN HYBRID ELECTRIC VEHICLE.—

12 The term ‘plug-in hybrid electric vehicle’ means a
13 light-duty, medium-duty, or heavy-duty on-road or
14 nonroad vehicle that is propelled by any combination
15 of—

16 “(A) an electric motor and on-board, re-
17 chargeable energy storage system capable of op-
18 erating the vehicle in intermittent or continuous
19 all-electric mode and which is rechargeable
20 using an off-board source of electricity; and

21 “(B) an internal combustion engine or
22 heat engine using any combustible fuel.

23 “(f) AUTHORIZATION OF APPROPRIATIONS.—There
24 are authorized to be appropriated to carry out this section

1 such sums as are necessary for each of fiscal years 2008
2 through 2013.”.

3 **SEC. 9407. NEAR-TERM ELECTRIC DRIVE TRANSPORTATION**
4 **DEPLOYMENT PROGRAM.**

5 (a) REVOLVING LOAN PROGRAM.—

6 (1) IN GENERAL.—The Secretary shall establish
7 a revolving loan program to provide loans to eligible
8 entities for the conduct of qualified electric transpor-
9 tation projects.

10 (2) CRITERIA.—The Secretary shall establish
11 criteria for the provision of loans under this sub-
12 section.

13 (b) MARKET ASSESSMENT AND ELECTRICITY USAGE
14 PROGRAM.—

15 (1) IN GENERAL.—The Administrator of the
16 Environmental Protection Agency, in consultation
17 with the Secretary and private industry, shall carry
18 out a program—

19 (A) to inventory and analyze existing elec-
20 tric drive transportation technologies and hy-
21 brid technologies and markets; and

22 (B) to identify and implement methods of
23 removing barriers for existing and emerging ap-
24 plications of electric drive transportation tech-
25 nologies and hybrid transportation technologies.

1 (2) ELECTRICITY USAGE.—The Secretary, in
2 consultation with the Administrator of the Environ-
3 mental Protection Agency and private industry, shall
4 carry out a program—

5 (A) to develop systems and processes—

6 (i) to enable plug-in electric vehicles
7 to enhance the availability of emergency
8 back-up power for consumers; and

9 (ii) to study and demonstrate the po-
10 tential value to the electric grid of using
11 the energy stored in the on-board storage
12 systems to improve the efficiency of the
13 grid generation system; and

14 (B) to work with utilities and other inter-
15 ested stakeholders to study and demonstrate
16 the implications of the introduction of plug-in
17 electric vehicles and other types of electric
18 transportation on the production of electricity
19 from renewable resources.

20 (3) OFF-PEAK ELECTRICITY USAGE GRANTS.—

21 In carrying out the program under paragraph (2),
22 the Secretary shall provide grants to assist eligible
23 public and private electric utilities to conduct pro-
24 grams or activities to encourage owners of electric
25 drive transportation technologies—

1 (A) to use off-peak electricity; or

2 (B) to have the load managed by the util-
3 ity.

4 (c) DEFINITION OF QUALIFIED ELECTRIC TRANS-
5 PORTATION PROJECT.—In this section, the term “quali-
6 fied electric transportation project” includes a project re-
7 lating to—

8 (1) ship-side or shore-side electrification for
9 vessels;

10 (2) truck-stop electrification;

11 (3) electric truck refrigeration units;

12 (4) battery-powered auxiliary power units for
13 trucks;

14 (5) electric airport ground support equipment;

15 (6) electric material/cargo handling equipment;

16 (7) electric or dual-mode electric freight rail;

17 (8) any distribution upgrades needed to supply
18 electricity to the qualified electric transportation
19 projects; and

20 (9) any ancillary infrastructure, including panel
21 upgrades, battery chargers, in-situ transformer, and
22 trenching.

23 (d) AUTHORIZATION OF APPROPRIATIONS.—There
24 are authorized to carry this section such sums as may be
25 necessary.

1 **SEC. 9408. STUDYING THE BENEFITS OF PLUG-IN HYBRID**
2 **ELECTRIC DRIVE VEHICLES AND ELECTRIC**
3 **DRIVE TRANSPORTATION.**

4 (a) STUDY.—

5 (1) CITY CARS.—Not later than 1 year after the
6 date of enactment of this section, the Secretary of
7 Transportation in consultation with the Secretary of
8 Energy and appropriate Federal agencies and inter-
9 ested stakeholders in the public, private and non-
10 profit sectors, shall study and report to Congress on
11 the benefits of and barriers to the widespread use of
12 a potentially new class of vehicles known as city cars
13 with performance capability that exceeds that of low
14 speed vehicles but is less than that of passenger ve-
15 hicles, and which may be battery electric, fuel cell
16 electric, or plug-in hybrid electric vehicles. Such
17 study shall examine the benefits and issues associ-
18 ated with limiting city cars to a maximum speed of
19 35 mph, 45 mph, 55 mph, or any other maximum
20 speed, and make a recommendation regarding max-
21 imum speed.

22 (2) AUTHORIZATION OF APPROPRIATIONS.—
23 Such sums as may be necessary are authorized to be
24 appropriated to carry out this subsection.

25 (b) DEFINITIONS.—In this section—

1 (1) NONROAD VEHICLE.—The term “nonroad
2 vehicle” has the meaning given that term in section
3 216 of the Clean Air Act (42 U.S.C. 7550)), or vehi-
4 cles of the same classification that are fully or par-
5 tially powered by an electric motor powered by a fuel
6 cell, a battery, or an off-board source of electricity.

7 (2) PLUG-IN ELECTRIC DRIVE VEHICLE.—The
8 term “ plug-in electric drive vehicle” means a means
9 a light-duty, medium-duty, or heavy-duty on-road or
10 nonroad battery electric, hybrid or fuel cell vehicle
11 that can be recharged from an external electricity
12 source for motive power.

13 (3) PLUG-IN HYBRID ELECTRIC VEHICLE.—The
14 term “plug-in hybrid electric vehicle” means a light-
15 duty, medium-duty, or heavy-duty on-road or
16 nonroad vehicle that is propelled by any combination
17 of—

18 (A) an electric motor and on-board, re-
19 chargeable energy storage system capable of op-
20 erating the vehicle in intermittent or continuous
21 all-electric mode and which is rechargeable
22 using an off-board source of electricity; and

23 (B) an internal combustion engine or heat
24 engine using any combustible fuel.

1 **Subtitle F—Availability of Critical**
2 **Energy Information**

3 **SEC. 9501. FINDINGS.**

4 The Congress finds that—

5 (1) the Energy Information Administration’s
6 data is critical not merely for analysis of the role of
7 energy in our economy and environment, but for the
8 effective functioning of domestic and international
9 energy markets.

10 (2) Federal and State policymakers rely on the
11 Energy Information Administration to collect and
12 report State level energy information needed for en-
13 ergy policymaking, compliance with Federal and
14 State mandates, and for purposes of emergency en-
15 ergy preparedness and response;

16 (3) as policymakers consider and implement
17 policies to cut greenhouse gas emissions, accurate,
18 timely, and comparable State energy information be-
19 comes even more important;

20 (4) new and expanded sources of information
21 about energy demand and supply have become avail-
22 able and need to be incorporated in the Energy In-
23 formation Administration’s data and analysis func-
24 tions;

1 (5) the Energy Information Administration
2 needs to maintain and enhance its ability to collect,
3 process, and analyze data while confronting broader
4 demands for information in greater detail; and

5 (6) budget and personnel constraints have
6 forced the Energy Information Administration to
7 curtail surveys relied upon by energy and financial
8 markets and could further defer important improve-
9 ments in the scope and quality of resulting informa-
10 tion.

11 **SEC. 9502. ASSESSMENT OF RESOURCES.**

12 (a) FIVE-YEAR PLAN.—The Administrator of the
13 Energy Information Administration shall establish a 5-
14 year plan to enhance the quality and scope of the data
15 collection necessary to ensure the scope, accuracy, and
16 timeliness of the information needed for efficient func-
17 tioning of energy markets and related financial operations.
18 Particular attention shall be paid to restoring data series
19 terminated because of budget constraints, data on demand
20 response, timely data series of State-level information, im-
21 provements in the area of oil and gas data, improvements
22 in data on solid byproducts from coal-based energy-pro-
23 ducing facilities, and the ability to provide data mandated
24 by Congress promptly and completely.

1 (b) SUBMITTAL TO CONGRESS.—The Administrator
2 shall submit this plan to Congress detailing improvements
3 needed to enhance the Energy Information Administra-
4 tion’s ability to collect and process energy information in
5 a manner consistent with the needs of energy markets.

6 (c) GUIDELINES.—The Administrator shall—

7 (1) establish guidelines to ensure the quality,
8 comparability, and scope of State energy data, in-
9 cluding data on energy production and consumption
10 by product and sector and renewable and alternative
11 sources, required to provide a comprehensive, accu-
12 rate energy profile at the State level;

13 (2) share company-level data collected at the
14 State level with the State involved, provided the
15 State has agreed to reasonable guidelines for its use
16 adopted by the Administrator;

17 (3) assess any existing gaps in data obtained by
18 and compiled by the Energy Information Adminis-
19 tration; and

20 (4) evaluate the most cost effective ways to ad-
21 dress any data quality and quantity issues in con-
22 junction with State officials.

23 The Energy Information Administration shall consult with
24 State officials and the Federal Energy Regulatory Com-
25 mission on a regular basis in establishing these guidelines

1 and scope of State level data, as well as in exploring ways
2 to address data needs and serve data uses.

3 (d) ASSESSMENT OF STATE DATA NEEDS.—The Ad-
4 ministrator shall provide an assessment of these State-
5 level data needs to the Congress not later than 1 year after
6 the date of enactment of this Act, detailing a plan to ad-
7 dress the needs identified.

8 (e) AUTHORIZATION OF APPROPRIATIONS.—There
9 are authorized to be appropriated to the Administrator for
10 carrying out this section, in addition to any other author-
11 izations—

- 12 (1) \$10,000,000 for fiscal year 2008;
- 13 (2) \$10,000,000 for fiscal year 2009;
- 14 (3) \$10,000,000 for fiscal year 2010;
- 15 (4) \$15,000,000 for fiscal year 2011;
- 16 (5) \$20,000,000 for fiscal year 2012; and
- 17 (6) such sums as are necessary for subsequent
18 fiscal years.

19 **Subtitle G—Natural Gas Utilities**

20 **SEC. 9511. NATURAL GAS UTILITIES.**

21 (a) IN GENERAL.—Section 303(b) of the Public Util-
22 ity Regulatory Policies Act of 1978 (15 U.S.C. 3203(b))
23 is amended by adding at the end the following:

24 “(5) ENERGY EFFICIENCY.—Each natural gas
25 utility shall—

1 “(A) integrate energy efficiency resources
2 into the plans and planning processes of the
3 natural gas utility; and

4 “(B) adopt policies that establish energy
5 efficiency as a priority resource in the plans
6 and planning processes of the natural gas util-
7 ity.

8 For purposes of applying the provisions of this sub-
9 title to this paragraph, any reference in this subtitle
10 to the date of enactment of this Act shall be treated
11 as a reference to the date of the enactment of this
12 paragraph.

13 “(6) RATE POLICY MODIFICATIONS TO PRO-
14 MOTE ENERGY EFFICIENCY INVESTMENTS.—

15 “(A) IN GENERAL.—The rates allowed to
16 be charged by a natural gas utility shall align
17 utility incentives with the deployment of cost-ef-
18 fective energy efficiency.

19 “(B) POLICY OPTIONS.—In complying with
20 subparagraph (A), each State regulatory au-
21 thority and each nonregulated utility shall con-
22 sider—

23 “(i) ensuring that utilities’ recovery of
24 authorized revenues is independent of the

1 amount of customers' natural gas con-
2 sumption;

3 “(ii) providing to utilities incentives
4 for the successful management of energy
5 efficiency programs, such as allowing utili-
6 ties to retain a portion of the cost-reducing
7 benefits accruing from the programs;

8 “(iii) promoting the impact on adop-
9 tion of energy efficiency as 1 of the goals
10 of retail rate design, recognizing that en-
11 ergy efficiency must be balanced with other
12 objectives; and

13 “(iv) adopting rate designs that en-
14 courage energy efficiency for each cus-
15 tomer class.

16 For purposes of applying the provisions of this
17 subtitle to this paragraph, any reference in this
18 subtitle to the date of enactment of this Act
19 shall be treated as a reference to the date of the
20 enactment of this paragraph.”.

21 (b) CONFORMING AMENDMENT.—Section 303(b)(2)
22 of such Act is amended by striking “and (4)” inserting
23 “(4), (5), and (6)” in lieu thereof.

Subtitle H—Federal Renewable Portfolio Standard

SEC. 9611. FEDERAL RENEWABLE PORTFOLIO STANDARD.

(a) IN GENERAL.—Title VI of the Public Utility Regulatory Policies Act of 1978 is amended by adding at the end the following:

“SEC. 610. FEDERAL RENEWABLE PORTFOLIO STANDARD.

“(a) DEFINITIONS.—For purposes of this section:

“(1) BIOMASS.—

“(A) IN GENERAL.—The term ‘biomass’ means—

“(i) cellulosic (plant fiber) organic materials from a plant that is planted for the purpose of being used to produce energy; or

“(ii) nonhazardous, plant or algal matter that is derived from any of the following:

“(I) An agricultural crop, crop byproduct or residue resource.

“(II) Waste such as landscape or right-of-way trimmings (but not including municipal solid waste, recyclable postconsumer waste paper, paint-

1 ed, treated, or pressurized wood, wood
2 contaminated with plastic or metals).

3 “(III) Gasified animal waste.

4 “(IV) Landfill methane.

5 “(B) NATIONAL FOREST LANDS AND CER-
6 TAIN OTHER PUBLIC LANDS.—With respect to
7 organic material removed from National Forest
8 System lands or from public lands administered
9 by the Secretary of the Interior, the term ‘bio-
10 mass’ covers only organic material from (i) eco-
11 logical forest restoration; (ii) pre-commercial
12 thinnings; (iii) brush; (iv) mill residues; and (v)
13 slash.

14 “(C) EXCLUSION OF CERTAIN FEDERAL
15 LANDS.—Notwithstanding subparagraph (B),
16 material or matter that would otherwise qualify
17 as biomass are not included in the term bio-
18 mass if they are located on the following Fed-
19 eral lands:

20 “(i) Federal land containing old
21 growth forest or late successional forest
22 unless the Secretary of the Interior or the
23 Secretary of Agriculture determines that
24 the removal of organic material from such
25 land is appropriate for the applicable forest

1 type and maximizes the retention of late-
2 successional and large and old growth
3 trees, late-successional and old growth for-
4 est structure, and late-successional and old
5 growth forest composition.

6 “(ii) Federal land on which the re-
7 moval of vegetation is prohibited, including
8 components of the National Wilderness
9 Preservation System.

10 “(iii) Wilderness Study Areas.

11 “(iv) Inventoried roadless areas.

12 “(v) Components of the National
13 Landscape Conservation System.

14 “(vi) National Monuments.

15 “(2) ELIGIBLE FACILITY.—The term ‘eligible
16 facility’ means—

17 “(A) a facility for the generation of electric
18 energy from a renewable energy resource that is
19 placed in service on or after January 1, 2001;
20 or

21 “(B) a repowering or cofiring increment.

22 “(3) EXISTING FACILITY.—The term ‘existing
23 facility’ means a facility for the generation of elec-
24 tric energy from a renewable energy resource that is
25 not an eligible facility.

1 “(4) INCREMENTAL HYDROPOWER.—The term
2 ‘incremental hydropower’ means additional genera-
3 tion that is achieved from increased efficiency or ad-
4 ditions of capacity made on or after January 1,
5 2001, or the effective date of an existing applicable
6 State renewable portfolio standard program at a hy-
7 droelectric facility that was placed in service before
8 that date.

9 “(5) INDIAN LAND.—The term ‘Indian land’
10 means—

11 “(A) any land within the limits of any In-
12 dian reservation, pueblo, or rancharia;

13 “(B) any land not within the limits of any
14 Indian reservation, pueblo, or rancharia title to
15 which was on the date of enactment of this
16 paragraph either held by the United States for
17 the benefit of any Indian tribe or individual or
18 held by any Indian tribe or individual subject to
19 restriction by the United States against alien-
20 ation;

21 “(C) any dependent Indian community; or

22 “(D) any land conveyed to any Alaska Na-
23 tive corporation under the Alaska Native
24 Claims Settlement Act.

1 “(6) INDIAN TRIBE.—The term ‘Indian tribe’
2 means any Indian tribe, band, nation, or other orga-
3 nized group or community, including any Alaskan
4 Native village or regional or village corporation as
5 defined in or established pursuant to the Alaska Na-
6 tive Claims Settlement Act (43 U.S.C. 1601 et seq.),
7 which is recognized as eligible for the special pro-
8 grams and services provided by the United States to
9 Indians because of their status as Indians.

10 “(7) RENEWABLE ENERGY.—The term ‘renew-
11 able energy’ means electric energy generated by a re-
12 newable energy resource.

13 “(8) RENEWABLE ENERGY RESOURCE.—The
14 term ‘renewable energy resource’ means solar (in-
15 cluding solar water heating), wind, ocean, tidal, geo-
16 thermal energy, biomass, landfill gas, or incremental
17 hydropower.

18 “(9) REPOWERING OR COFIRING INCREMENT.—
19 The term ‘repowering or cofiring increment’
20 means—

21 “(A) the additional generation from a
22 modification that is placed in service on or after
23 January 1, 2001, to expand electricity produc-
24 tion at a facility used to generate electric en-
25 ergy from a renewable energy resource or to

1 cofire biomass that was placed in service before
2 the date of enactment of this section; or

3 “(B) the additional generation above the
4 average generation in the 3 years preceding the
5 date of enactment of this section at a facility
6 used to generate electric energy from a renew-
7 able energy resource or to cofire biomass that
8 was placed in service before the date of enact-
9 ment of this section.

10 “(10) RETAIL ELECTRIC SUPPLIER.—The term
11 ‘retail electric supplier’ means a person that sells
12 electric energy to electric consumers (other than con-
13 sumers in Hawaii) that sold not less than 1,000,000
14 megawatt-hours of electric energy to electric con-
15 sumers for purposes other than resale during the
16 preceding calendar year; except that such term does
17 not include the United States, a State or any polit-
18 ical subdivision of a State, or any agency, authority,
19 or instrumentality of any one or more of the fore-
20 going, or a rural electric cooperative.

21 “(11) RETAIL ELECTRIC SUPPLIER’S BASE
22 AMOUNT.—The term ‘retail electric supplier’s base
23 amount’ means the total amount of electric energy
24 sold by the retail electric supplier, expressed in
25 terms of kilowatt hours, to electric customers for

1 purposes other than resale during the most recent
2 calendar year for which information is available, ex-
3 cluding—

4 “(A) electric energy that is not incremental
5 hydropower generated by a hydroelectric facil-
6 ity; and

7 “(B) electricity generated through the in-
8 cineration of municipal solid waste.

9 “(b) COMPLIANCE.—For each calendar year begin-
10 ning in calendar year 2010, each retail electric supplier
11 shall meet the requirements of subsection (c) by submit-
12 ting to the Secretary, not later than April 1 of the fol-
13 lowing calendar year, one or more of the following:

14 “(1) Federal renewable energy credits issued
15 under subsection (e).

16 “(2) Federal energy efficiency credits issued
17 under subsection (i), except that Federal energy effi-
18 ciency credits may not be used to meet more than
19 27 percent of the requirements of subsection (c) in
20 any calendar year.

21 “(3) Certification of the renewable energy gen-
22 erated and electricity savings pursuant to the funds
23 associated with State compliance payments as speci-
24 fied in subsection (e)(3)(G).

1 “(4) Alternative compliance payments pursuant
2 to subsection (j).

3 “(c) REQUIRED ANNUAL PERCENTAGE.—For cal-
4 endar years 2010 through 2039, the required annual per-
5 centage of the retail electric supplier’s base amount that
6 shall be generated from renewable energy resources, or
7 otherwise credited towards such percentage requirement
8 pursuant to subsection (d), shall be the percentage speci-
9 fied in the following table:

“Calendar Years	Required annual percentage
2010	2.75
2011	2.75
2012	3.75
2013	4.5
2014	5.5
2015	6.5
2016	7.5
2017	8.25
2018	10.25
2019	12.25
2020 and thereafter through 2039	15

10 “(d) RENEWABLE ENERGY AND ENERGY EFFI-
11 CIENCY CREDITS.—(1) A retail electric supplier may sat-
12 isfy the requirements of subsection (b)(1) through the sub-
13 mission of Federal renewable energy credits—

14 “(A) issued to the retail electric supplier under
15 subsection (e);

16 “(B) obtained by purchase or exchange under
17 subsection (f) or (g); or

18 “(C) borrowed under subsection (h).

1 “(2) A retail electric supplier may satisfy the require-
2 ments of subsection (b)(2) through the submission of Fed-
3 eral energy efficiency credits issued to the retail electric
4 supplier obtained by purchase or exchange pursuant to
5 subsection (i).

6 “(3) A Federal renewable energy credit may be
7 counted toward compliance with subsection (b)(1) only
8 once. A Federal energy efficiency credit may be counted
9 toward compliance with subsection (b)(2) only once.

10 “(e) ISSUANCE OF CREDITS.—(1) The Secretary
11 shall establish by rule, not later than 1 year after the date
12 of enactment of this section, a program to verify and issue
13 Federal renewable energy credits to generators of renew-
14 able energy, track their sale, exchange and retirement and
15 to enforce the requirements of this section. To the extent
16 possible, in establishing such program, the Secretary shall
17 rely upon existing and emerging State or regional tracking
18 systems that issue and track non-Federal renewable en-
19 ergy credits.

20 “(2) An entity that generates electric energy through
21 the use of a renewable energy resource may apply to the
22 Secretary for the issuance of renewable energy credits.
23 The applicant must demonstrate that the electric energy
24 will be transmitted onto the grid or, in the case of a gen-
25 eration offset, that the electric energy offset would have

1 otherwise been consumed on site. The application shall in-
2 dicate—

3 “(A) the type of renewable energy resource used
4 to produce the electricity;

5 “(B) the location where the electric energy was
6 produced; and

7 “(C) any other information the Secretary deter-
8 mines appropriate.

9 “(3)(A) Except as provided in subparagraphs (B),
10 (C), and (D), the Secretary shall issue to a generator of
11 electric energy one Federal renewable energy credit for
12 each kilowatt hour of electric energy generated by the use
13 of a renewable energy resource at an eligible facility.

14 “(B) For purpose of compliance with this section,
15 Federal renewable energy credits for incremental hydro-
16 power shall be based, on the increase in average annual
17 generation resulting from the efficiency improvements or
18 capacity additions. The incremental generation shall be
19 calculated using the same water flow information used to
20 determine a historic average annual generation baseline
21 for the hydroelectric facility and certified by the Secretary
22 or the Federal Energy Regulatory Commission. The cal-
23 culation of the Federal renewable energy credits for incre-
24 mental hydropower shall not be based on any operational

1 changes at the hydroelectric facility not directly associated
2 with the efficiency improvements or capacity additions.

3 “(C) The Secretary shall issue 2 renewable energy
4 credits for each kilowatt hour of electric energy generated
5 and supplied to the grid in that calendar year through the
6 use of a renewable energy resource at an eligible facility
7 located on Indian land. For purposes of this paragraph,
8 renewable energy generated by biomass cofired with other
9 fuels is eligible for two credits only if the biomass was
10 grown on such land.

11 “(D) For electric energy generated by a renewable
12 energy resource at an on-site eligible facility and used to
13 offset part or all of the customer’s requirements for elec-
14 tric energy, the Secretary shall issue 3 renewable energy
15 credits to such customer for each kilowatt hour generated.

16 “(E) If both a renewable energy resource and a non-
17 renewable energy resource are used to generate the electric
18 energy, the Secretary shall issue the Federal renewable en-
19 ergy credits based on the proportion of the renewable en-
20 ergy resources used.

21 “(F) When a generator has sold electric energy gen-
22 erated through the use of a renewable energy resource to
23 a retail electric supplier under a contract for power from
24 an existing facility, and the contract has not determined
25 ownership of the Federal renewable energy credits associ-

1 ated with such generation, the Secretary shall issue such
2 Federal renewable energy credits to the retail electric sup-
3 plier for the duration of the contract.

4 “(G) Payments made by a retail electricity supplier,
5 directly or indirectly, to a State for compliance with a
6 State renewable portfolio standard program, or for an al-
7 ternative compliance mechanism, shall be valued for the
8 purpose of subsection (b)(2) based on the amount of elec-
9 tric energy generation from renewable resources and elec-
10 tricity savings that results from those payments.

11 “(f) EXISTING FACILITIES.—The Secretary shall en-
12 sure that a retail electric supplier that acquires Federal
13 renewable energy credits associated with the generation of
14 renewable energy from an existing facility may use such
15 credits for purpose of its compliance with subsection
16 (b)(1). Such credits may not be sold or traded for the pur-
17 pose of compliance by another retail electric supplier.

18 “(g) RENEWABLE ENERGY CREDIT TRADING.—A
19 Federal renewable energy credit, may be sold, transferred
20 or exchanged by the entity to whom issued or by any other
21 entity who acquires the Federal renewable energy credit,
22 except for those renewable energy credits from existing fa-
23 cilities. A Federal renewable energy credit for any year
24 that is not submitted to satisfy the minimum renewable
25 generation requirement of subsection (c) for that year may

1 be carried forward for use pursuant to subsection (b)(1)
2 within the next 3 years.

3 “(h) RENEWABLE ENERGY CREDIT BORROWING.—

4 At any time before the end of calendar year 2012, a retail
5 electric supplier that has reason to believe it will not be
6 able to fully comply with subsection (b) may—

7 “(1) submit a plan to the Secretary dem-
8 onstrating that the retail electric supplier will earn
9 sufficient Federal renewable energy credits within
10 the next 3 calendar years which, when taken into ac-
11 count, will enable the retail electric supplier to meet
12 the requirements of subsection (b) for calendar year
13 2012 and the subsequent calendar years involved;
14 and

15 “(2) upon the approval of the plan by the Sec-
16 retary, apply Federal renewable energy credits that
17 the plan demonstrates will be earned within the next
18 3 calendar years to meet the requirements of sub-
19 section (b) for each calendar year involved.

20 The retail electric supplier must repay all of the borrowed
21 Federal renewable energy credits by submitting an equiva-
22 lent number of Federal renewable energy credits, in addi-
23 tion to those otherwise required under subsection (b), by
24 calendar year 2020 or any earlier deadlines specified in
25 the approved plan. Failure to repay the borrowed Federal

1 renewable energy credits shall subject the retail electric
2 supplier to civil penalties under subsection (i) for violation
3 of the requirements of subsection (b) for each calendar
4 year involved.

5 “(i) ENERGY EFFICIENCY CREDITS.—

6 “(1) DEFINITIONS.—In this subsection—

7 “(A) CUSTOMER FACILITY SAVINGS.—The
8 term ‘customer facility savings’ means a reduc-
9 tion in end-use electricity at a facility of an
10 end-use consumer of electricity served by a re-
11 tail electric supplier, as compared to—

12 “(i) consumption at the facility during
13 a base year;

14 “(ii) in the case of new equipment (re-
15 gardless of whether the new equipment re-
16 places existing equipment at the end of the
17 useful life of the existing equipment), con-
18 sumption by the new equipment of average
19 efficiency; or

20 “(iii) in the case of a new facility,
21 consumption at a reference facility.

22 “(B) ELECTRICITY SAVINGS.—The term
23 ‘electricity savings’ means—

24 “(i) customer facility savings of elec-
25 tricity consumption adjusted to reflect any

1 associated increase in fuel consumption at
2 the facility;

3 “(ii) reductions in distribution system
4 losses of electricity achieved by a retail
5 electricity distributor, as compared to
6 losses attributable to new or replacement
7 distribution system equipment of average
8 efficiency (as defined by the Secretary by
9 regulation);

10 “(iii) the output of new combined heat
11 and power systems, to the extent provided
12 under paragraph (5); and

13 “(iv) recycled energy savings.

14 “(C) QUALIFYING ELECTRICITY SAV-
15 INGS.—The term ‘qualifying electricity savings’
16 means electricity saving that meet the measure-
17 ment and verification requirements of para-
18 graph (4).

19 “(D) RECYCLED ENERGY SAVINGS.—The
20 term ‘recycled energy savings’ means a reduc-
21 tion in electricity consumption that is attrib-
22 utable to electrical or mechanical power, or
23 both, produced by modifying an industrial or
24 commercial system that was in operation before

1 July 1, 2007, in order to recapture energy that
2 would otherwise be wasted.

3 “(2) PETITION.—The Governor of a State may
4 petition the Secretary to allow up to 25 percent of
5 the requirements of a retail electric supplier under
6 subsection (c) in the State to be met by submitting
7 Federal energy efficiency credits issued pursuant to
8 this subsection.

9 “(3) ISSUANCE OF CREDITS.—

10 “(A) The Secretary shall issue energy effi-
11 ciency credits in States described in paragraph
12 (2) in accordance with this subsection.

13 “(B) In accordance with regulations pro-
14 mulgated by the Secretary, the Secretary shall
15 issue credits for—

16 “(i) qualified electricity savings
17 achieved by a retail electric supplier in a
18 calendar year; and

19 “(ii) qualified electricity savings
20 achieved by other entities (including State
21 agencies) if—

22 “(I) the measures used to achieve
23 the qualifying electricity savings were
24 installed or place in operation by the

1 entity seeking the credit or the des-
2 ignated agent of the entity; and

3 “(II) no retail electric supplier
4 paid a substantial portion of the cost
5 of achieving the qualified electricity
6 savings (unless the utility has waived
7 any entitlement to the credit).

8 “(4) MEASUREMENT AND VERIFICATION OF
9 ELECTRICITY SAVINGS.—Not later than June 30,
10 2009, the Secretary shall promulgate regulations re-
11 garding the measurement and verification of elec-
12 tricity savings under this subsection, including regu-
13 lations covering—

14 “(A) procedures and standards for defining
15 and measuring electricity savings that will be
16 eligible to receive credits under paragraph (3),
17 which shall—

18 “(i) specify the types of energy effi-
19 ciency and energy conservation that will be
20 eligible for the credits;

21 “(ii) require that energy consumption
22 for customer facilities or portions of facili-
23 ties in the applicable base and current
24 years be adjusted, as appropriate, to ac-

1 count for changes in weather, level of pro-
2 duction, and building area;

3 “(iii) account for the useful life of
4 electricity savings measures;

5 “(iv) include specified electricity sav-
6 ings values for specific, commonly-used ef-
7 ficiency measures;

8 “(v) specify the extent to which elec-
9 tricity savings attributable to measures
10 carried out before the date of enactment of
11 this section are eligible to receive credits
12 under this subsection; and

13 “(vi) exclude electricity savings that
14 (I) are not properly attributable to meas-
15 ures carried out by the entity seeking the
16 credit; or (II) have already been credited
17 under this section to another entity;

18 “(B) procedures and standards for third-
19 party verification of reported electricity savings;
20 and

21 “(C) such requirements for information,
22 reports, and access to facilities as may be nec-
23 essary to carry out this subsection.

24 “(5) COMBINED HEAT AND POWER.—Under
25 regulations promulgated by the Secretary, the incre-

1 ment of electricity output of a new combined heat
2 and power system that is attributable to the higher
3 efficiency of the combined system (as compared to
4 the efficiency of separate production of the electric
5 and thermal outputs), shall be considered electricity
6 savings under this subsection.

7 “(6) STATE DELEGATION.—On application of
8 the Governor of a State, the Secretary may delegate
9 to the State the administration of this subsection in
10 the State if the Secretary determines that the State
11 is willing and able to carry out the functions de-
12 scribed in this subsection.

13 “(j) ENFORCEMENT.—A retail electric supplier that
14 does not comply with subsection (b) shall be liable for the
15 payment of a civil penalty. That penalty shall be calculated
16 on the basis of the number of kilowatt-hours represented
17 by the retail electric supplier’s failure to comply with sub-
18 section (b), multiplied by the lesser of 4.5 cents (adjusted
19 for inflation for such calendar year, based on the Gross
20 Domestic Product Implicit Price Deflator) or 300 percent
21 of the average market value of Federal renewable energy
22 credits and energy efficiency credits for the compliance pe-
23 riod. Any such penalty shall be due and payable without
24 demand to the Secretary as provided in the regulations
25 issued under subsection (e).

1 “(k) ALTERNATIVE COMPLIANCE PAYMENTS.—The
2 Secretary shall accept payment equal to 200 percent of
3 the average market value of Federal renewable energy
4 credits and Federal energy efficiency credits for the appli-
5 cable compliance period or 3.0 cents per kilowatt hour ad-
6 justed on January 1 of each year following calendar year
7 2006 based on the Gross Domestic Product Implicit Price
8 Deflator, as a means of compliance under subsection
9 (b)(4).

10 “(l) INFORMATION COLLECTION.—The Secretary
11 may collect the information necessary to verify and
12 audit—

13 “(1) the annual renewable energy generation of
14 any retail electric supplier, Federal renewable energy
15 credits submitted by a retail electric supplier pursu-
16 ant to subsection (b)(1) and Federal energy effi-
17 ciency credits;

18 “(2) annual electricity savings achieved pursu-
19 ant to subsection (i);

20 “(3) the validity of Federal renewable energy
21 credits submitted for compliance by a retail electric
22 supplier to the Secretary; and

23 “(4) the quantity of electricity sales of all retail
24 electric suppliers.

1 “(m) ENVIRONMENTAL SAVINGS CLAUSE.—Incre-
2 mental hydropower shall be subject to all applicable envi-
3 ronmental laws and licensing and regulatory requirements.

4 “(n) STATE PROGRAMS.—(1) Nothing in this section
5 diminishes any authority of a State or political subdivision
6 of a State to—

7 “(A) adopt or enforce any law or regulation respect-
8 ing renewable energy or energy efficiency, including but
9 not limited to programs that exceed the required amount
10 of renewable energy or energy efficiency under this sec-
11 tion, or

12 “(B) regulate the acquisition and disposition of Fed-
13 eral renewable energy credits and Federal energy effi-
14 ciency credits by electric suppliers.

15 No law or regulation referred to in subparagraph (A) shall
16 relieve any person of any requirement otherwise applicable
17 under this section. The Secretary, in consultation with
18 States having renewable energy programs and energy effi-
19 ciency programs, shall preserve the integrity of such State
20 programs, including programs that exceed the required
21 amount of renewable energy and energy efficiency under
22 this section, and shall facilitate coordination between the
23 Federal program and State programs.

24 “(2) In the rule establishing the program under this
25 section, the Secretary shall incorporate common elements

1 of existing renewable energy and energy efficiency pro-
2 grams, including State programs, to ensure administrative
3 ease, market transparency and effective enforcement. The
4 Secretary shall work with the States to minimize adminis-
5 trative burdens and costs to retail electric suppliers.

6 “(o) RECOVERY OF COSTS.—An electric utility whose
7 sales of electric energy are subject to rate regulation, in-
8 cluding any utility whose rates are regulated by the Com-
9 mission and any State regulated electric utility, shall not
10 be denied the opportunity to recover the full amount of
11 the prudently incurred incremental cost of renewable en-
12 ergy and energy efficiency obtained to comply with the re-
13 quirements of subsection (b). For purposes of this sub-
14 section, the definitions in section 3 of this Act shall apply
15 to the terms electric utility, State regulated electric utility,
16 State agency, Commission, and State regulatory authority.

17 “(p) PROGRAM REVIEW.—The Secretary shall enter
18 into a contract with the National Academy of Sciences to
19 conduct a comprehensive evaluation of all aspects of the
20 program established under this section, within 8 years of
21 enactment of this section. The study shall include an eval-
22 uation of—

23 “(1) the effectiveness of the program in increas-
24 ing the market penetration and lowering the cost of

1 the eligible renewable energy and energy efficiency
2 technologies;

3 “(2) the opportunities for any additional tech-
4 nologies and sources of renewable energy and energy
5 efficiency emerging since enactment of this section;

6 “(3) the impact on the regional diversity and
7 reliability of supply sources, including the power
8 quality benefits of distributed generation;

9 “(4) the regional resource development relative
10 to renewable potential and reasons for any under in-
11 vestment in renewable resources; and

12 “(5) the net cost/benefit of the renewable port-
13 folio standard to the national and State economies,
14 including retail power costs, economic development
15 benefits of investment, avoided costs related to envi-
16 ronmental and congestion mitigation investments
17 that would otherwise have been required, impact on
18 natural gas demand and price, effectiveness of green
19 marketing programs at reducing the cost of renew-
20 able resources.

21 The Secretary shall transmit the results of the evaluation
22 and any recommendations for modifications and improve-
23 ments to the program to Congress not later than January
24 1, 2016.

1 “(q) STATE RENEWABLE ENERGY AND ENERGY EF-
2 FICIENCY ACCOUNT PROGRAM.—(1) The Secretary shall
3 establish, not later than December 31, 2009, a State re-
4 newable energy account program.

5 “(2) All money collected by the Secretary from the
6 alternative compliance payments under subsection (k)
7 shall be deposited into the State renewable energy and en-
8 ergy efficiency account established pursuant to this sub-
9 section.

10 “(3) Proceeds deposited in the State renewable en-
11 ergy and energy efficiency account shall be used by the
12 Secretary, subject to annual appropriations, for a program
13 to provide grants to the State agency responsible for ad-
14 ministering a fund to promote renewable energy genera-
15 tion and energy efficiency for customers of the state, or
16 an alternative agency designated by the state, or if no such
17 agency exists, to the state agency developing State energy
18 conservation plans under section 363 of the Energy Policy
19 and Conservation Act (42 U.S.C. 6322) for the purposes
20 of promoting renewable energy production and providing
21 energy assistance and weatherization services to low-in-
22 come consumers.

23 “(4) The Secretary may issue guidelines and criteria
24 for grants awarded under this subsection. At least 75 per-
25 cent of the funds provided to each State shall be used for

1 promoting renewable energy production and energy effi-
2 ciency through grants, production incentives or other
3 state-approved funding mechanisms. The funds shall be
4 allocated to the States on the basis of retail electric sales
5 subject to the Renewable Portfolio Standard under this
6 section or through voluntary participation. State agencies
7 receiving grants under this section shall maintain such
8 records and evidence of compliance as the Secretary may
9 require.”.

10 (b) TABLE OF CONTENTS.—The table of contents for
11 such title is amended by adding the following new item
12 at the end:

“Sec. 610. Federal renewable portfolio standard”.

13 (c) SUNSET.—Section 610 of such title and the item
14 relating to such section 610 in the table of contents for
15 such title are each repealed as of December 31, 2039.

16 **Subtitle I—Large and Small Scale**
17 **Hydropower**

18 **SEC. 9621. SENSE OF CONGRESS.**

19 Congress recognizes and supports renewable energy.
20 Specifically, the clean, consistent, pollution free large and
21 small scale conventional hydropower energy.

1 **DIVISION B—RENEWABLE EN-**
 2 **ERGY AND ENERGY CON-**
 3 **SERVATION TAX ACT OF 2007**

4 **SEC. 10001. SHORT TITLE; AMENDMENT OF 1986 CODE;**
 5 **TABLE OF CONTENTS.**

6 (a) SHORT TITLE.—This division may be cited as the
 7 “Renewable Energy and Energy Conservation Tax Act of
 8 2007”.

9 (b) AMENDMENT OF 1986 CODE.—Except as other-
 10 wise expressly provided, whenever in this division an
 11 amendment or repeal is expressed in terms of an amend-
 12 ment to, or repeal of, a section or other provision, the ref-
 13 erence shall be considered to be made to a section or other
 14 provision of the Internal Revenue Code of 1986.

15 (c) TABLE OF CONTENTS.—The table of contents for
 16 this division is as follows:

Sec. 10001. Short title; amendment of 1986 Code; table of contents.

TITLE XI—PRODUCTION INCENTIVES

- Sec. 11001. Extension and modification of renewable energy credit.
- Sec. 11002. Production credit for electricity produced from marine renewables.
- Sec. 11003. Extension and modification of energy credit.
- Sec. 11004. New clean renewable energy bonds.
- Sec. 11005. Extension and modification of special rule to implement FERC and State electric restructuring policy.
- Sec. 11006. Repeal of dollar limitation and allowance against alternative minimum tax for residential solar and fuel cell property credit.

TITLE XII—CONSERVATION

Subtitle A—Transportation

- Sec. 12001. Credit for plug-in hybrid vehicles.
- Sec. 12002. Extension and modification of alternative fuel vehicle refueling property credit.

- Sec. 12003. Extension and modification of credits for biodiesel and renewable diesel.
- Sec. 12004. Credit for production of cellulosic alcohol.
- Sec. 12005. Extension of transportation fringe benefit to bicycle commuters.
- Sec. 12006. Modification of limitation on automobile depreciation.
- Sec. 12007. Restructuring of New York Liberty Zone tax credits.

Subtitle B—Other Conservation Provisions

- Sec. 12011. Qualified energy conservation bonds.
- Sec. 12012. Qualified residential energy efficiency assistance bonds.
- Sec. 12013. Extension of energy efficient commercial buildings deduction.
- Sec. 12014. Modifications of energy efficient appliance credit for appliances produced after 2007.
- Sec. 12015. Five-year applicable recovery period for depreciation of qualified energy management devices.

TITLE XIII—REVENUE PROVISIONS

Subtitle A—Denial of Oil and Gas Tax Benefits

- Sec. 13001. Denial of deduction for income attributable to domestic production of oil, natural gas, or primary products thereof.
- Sec. 13002. 7-year amortization of geological and geophysical expenditures for certain major integrated oil companies.
- Sec. 13003. Clarification of determination of foreign oil and gas extraction income.

Subtitle B—Clarification of Eligibility for Certain Fuel Credits

- Sec. 13011. Clarification of eligibility for renewable diesel credit.
- Sec. 13012. Clarification that credits for fuel are designed to provide an incentive for United States production.

TITLE XIV—OTHER PROVISIONS

Subtitle A—Studies

- Sec. 14001. Carbon audit of the tax code.
- Sec. 14002. Comprehensive study of biofuels.

Subtitle B—Application of Certain Labor Standards on Projects Financed Under Tax Credit Bonds

- Sec. 14011. Application of certain labor standards on projects financed under tax credit bonds.

TITLE XI—PRODUCTION INCENTIVES

SEC. 11001. EXTENSION AND MODIFICATION OF RENEW- ABLE ENERGY CREDIT.

(a) EXTENSION OF CREDIT.—Each of the following provisions of section 45(d) (relating to qualified facilities) is amended by striking “January 1, 2009” and inserting “January 1, 2013”:

(1) Paragraph (1).

(2) Clauses (i) and (ii) of paragraph (2)(A).

(3) Clauses (i)(I) and (ii) of paragraph (3)(A).

(4) Paragraph (4).

(5) Paragraph (5).

(6) Paragraph (6).

(7) Paragraph (7).

(8) Subparagraphs (A) and (B) of paragraph

(9).

(b) MODIFICATION OF CREDIT PHASEOUT.—

(1) REPEAL OF PHASEOUT.—Subsection (b) of section 45 is amended—

(A) by striking paragraph (1), and

(B) by striking “the 8 cent amount in paragraph (1),” in paragraph (2) thereof.

(2) LIMITATION BASED ON INVESTMENT IN FACILITY.—Subsection (b) of section 45 is amended by

1 inserting before paragraph (2) the following new
2 paragraph:

3 “(1) LIMITATION BASED ON INVESTMENT IN
4 FACILITY.—

5 “(A) IN GENERAL.—In the case of any
6 qualified facility originally placed in service
7 after December 31, 2008, the amount of the
8 credit determined under subsection (a) for any
9 taxable year with respect to electricity produced
10 at such facility shall not exceed the product
11 of—

12 “(i) the applicable percentage with re-
13 spect to such facility, multiplied by

14 “(ii) the eligible basis of such facility.

15 “(B) CARRYFORWARD OF UNUSED LIMITA-
16 TION AND EXCESS CREDIT.—

17 “(i) UNUSED LIMITATION.—If the
18 limitation imposed under subparagraph (A)
19 with respect to any facility for any taxable
20 year exceeds the credit determined under
21 subsection (a) (determined without regard
22 to this paragraph) with respect to such fa-
23 cility for such taxable year, the limitation
24 imposed under subparagraph (A) with re-
25 spect to such facility for the succeeding

1 taxable year shall be increased by the
2 amount of such excess.

3 “(ii) EXCESS CREDIT.—If the credit
4 determined under subsection (a) (deter-
5 mined without regard to this paragraph)
6 with respect to any facility for any taxable
7 year exceeds the limitation imposed under
8 subparagraph (A) with respect to such fa-
9 cility for such taxable year, the credit de-
10 termined under subsection (a) with respect
11 to such facility for the succeeding taxable
12 year (determined before the application of
13 subparagraph (A) for such succeeding tax-
14 able year) shall be increased by the
15 amount of such excess. With respect to any
16 facility, no amount may be carried forward
17 under this clause to any taxable year be-
18 ginning after the 10-year period described
19 in subsection (a)(2)(A)(ii) with respect to
20 such facility.

21 “(C) APPLICABLE PERCENTAGE.—For
22 purposes of this paragraph—

23 “(i) IN GENERAL.—The term ‘applica-
24 ble percentage’ means, with respect to any
25 facility, the appropriate percentage pre-

1 scribed by the Secretary for the month in
2 which such facility is originally placed in
3 service.

4 “(ii) METHOD OF PRESCRIBING PER-
5 CENTAGES.—The percentages prescribed
6 by the Secretary for any month under
7 clause (i) shall be percentages which yield
8 over a 10-year period amounts of limita-
9 tion under subparagraph (A) which have a
10 present value equal to 35 percent of the el-
11 igible basis of the facility.

12 “(iii) METHOD OF DISCOUNTING.—
13 The present value under clause (ii) shall be
14 determined—

15 “(I) as of the last day of the 1st
16 year of the 10-year period referred to
17 in clause (ii),

18 “(II) by using a discount rate
19 equal to the average annual interest
20 rate of tax-exempt obligations having
21 a term of 10 years or more which are
22 issued during the month preceding the
23 month for which the percentage is
24 being prescribed, and

1 “(III) by taking into account the
2 limitation under subparagraph (A) for
3 any year on the last day of such year.

4 “(D) ELIGIBLE BASIS.—For purposes of
5 this paragraph, the term ‘eligible basis’ means,
6 with respect to any facility, the basis of such fa-
7 cility determined as of the time that such facil-
8 ity is originally placed in service.

9 “(E) SPECIAL RULE FOR FIRST AND LAST
10 YEAR OF CREDIT PERIOD.—In the case of any
11 taxable year any portion of which is not within
12 the 10-year period described in subsection
13 (a)(2)(A)(ii) with respect to any facility, the
14 amount of the limitation under subparagraph
15 (A) with respect to such facility shall be re-
16 duced by an amount which bears the same ratio
17 to the amount of such limitation (determined
18 without regard to this subparagraph) as such
19 portion of the taxable year which is not within
20 such period bears to the entire taxable year.”.

21 (c) EFFECTIVE DATE.—

22 (1) IN GENERAL.—Except as provided in para-
23 graph (2), the amendments made by this section
24 shall apply to property originally placed in service
25 after December 31, 2008.

1 (2) REPEAL OF CREDIT PHASEOUT.—The
2 amendments made by subsection (b)(1) shall apply
3 to taxable years ending after December 31, 2008.

4 **SEC. 11002. PRODUCTION CREDIT FOR ELECTRICITY PRO-**
5 **DUCED FROM MARINE RENEWABLES.**

6 (a) IN GENERAL.—Paragraph (1) of section 45(c)
7 (relating to resources) is amended by striking “and” at
8 the end of subparagraph (G), by striking the period at
9 the end of subparagraph (H) and inserting “, and”, and
10 by adding at the end the following new subparagraph:

11 “(I) marine and hydrokinetic renewable en-
12 ergy.”.

13 (b) MARINE RENEWABLES.—Subsection (c) of sec-
14 tion 45 is amended by adding at the end the following
15 new paragraph:

16 “(10) MARINE AND HYDROKINETIC RENEW-
17 ABLE ENERGY.—

18 “(A) IN GENERAL.—The term ‘marine and
19 hydrokinetic renewable energy’ means energy
20 derived from—

21 “(i) waves, tides, and currents in
22 oceans, estuaries, and tidal areas,

23 “(ii) free flowing water in rivers,
24 lakes, and streams,

1 “(iii) free flowing water in an irriga-
2 tion system, canal, or other man-made
3 channel, including projects that utilize non-
4 mechanical structures to accelerate the
5 flow of water for electric power production
6 purposes, or

7 “(iv) differentials in ocean tempera-
8 ture (ocean thermal energy conversion).

9 “(B) EXCEPTIONS.—Such term shall not
10 include any energy which is derived from any
11 source which utilizes a dam, diversionary struc-
12 ture (except as provided in subparagraph
13 (A)(iii)), or impoundment for electric power
14 production purposes.”.

15 (c) DEFINITION OF FACILITY.—Subsection (d) of
16 section 45 is amended by adding at the end the following
17 new paragraph:

18 “(11) MARINE AND HYDROKINETIC RENEW-
19 ABLE ENERGY FACILITIES.—In the case of a facility
20 producing electricity from marine and hydrokinetic
21 renewable energy, the term ‘qualified facility’ means
22 any facility owned by the taxpayer—

23 “(A) which has a nameplate capacity rat-
24 ing of at least 150 kilowatts, and

1 “(B) which is originally placed in service
2 on or after the date of the enactment of this
3 paragraph and before January 1, 2013.”.

4 (d) CREDIT RATE.—Subparagraph (A) of section
5 45(b)(4) is amended by striking “or (9)” and inserting
6 “(9), or (11)”.

7 (e) COORDINATION WITH SMALL IRRIGATION
8 POWER.—Paragraph (5) of section 45(d), as amended by
9 this Act, is amended by striking “January 1, 2013” and
10 inserting “the date of the enactment of paragraph (11)”.

11 (f) EFFECTIVE DATE.—The amendments made by
12 this section shall apply to electricity produced and sold
13 after the date of the enactment of this Act, in taxable
14 years ending after such date.

15 **SEC. 11003. EXTENSION AND MODIFICATION OF ENERGY**
16 **CREDIT.**

17 (a) EXTENSION OF CREDIT.—

18 (1) SOLAR ENERGY PROPERTY.—Paragraphs
19 (2)(A)(i)(II) and (3)(A)(ii) of section 48(a) (relating
20 to energy credit) are each amended by striking
21 “January 1, 2009” and inserting “January 1,
22 2017”.

23 (2) FUEL CELL PROPERTY.—Subparagraph (E)
24 of section 48(c)(1) (relating to qualified fuel cell

1 property) is amended by striking “December 31,
2 2008” and inserting “December 31, 2016”.

3 (b) ALLOWANCE OF ENERGY CREDIT AGAINST AL-
4 TERNATIVE MINIMUM TAX.—Subparagraph (B) of section
5 38(c)(4) (relating to specified credits) is amended by strik-
6 ing “and” at the end of clause (iii), by striking the period
7 at the end of clause (iv) and inserting “, and”, and by
8 adding at the end the following new clause:

9 “(v) the credit determined under sec-
10 tion 46 to the extent that such credit is at-
11 tributable to the energy credit determined
12 under section 48.”.

13 (c) INCREASE OF CREDIT LIMITATION FOR FUEL
14 CELL PROPERTY.—Subparagraph (B) of section 48(c)(1)
15 is amended by striking “\$500” and inserting “\$1,500”.

16 (d) PUBLIC ELECTRIC UTILITY PROPERTY TAKEN
17 INTO ACCOUNT.—

18 (1) IN GENERAL.—Paragraph (3) of section
19 48(a) is amended by striking the second sentence
20 thereof.

21 (2) CONFORMING AMENDMENTS.—

22 (A) Paragraph (1) of section 48(c) is
23 amended by striking subparagraph (D) and re-
24 designating subparagraph (E) as subparagraph
25 (D).

1 (B) Paragraph (2) of section 48(c) is
2 amended by striking subparagraph (D) and re-
3 designating subparagraph (E) as subparagraph
4 (D).

5 (e) CLERICAL AMENDMENTS.—Paragraphs (1)(B)
6 and (2)(B) of section 48(c) are each amended by striking
7 “paragraph (1)” and inserting “subsection (a)”.

8 (f) EFFECTIVE DATE.—

9 (1) IN GENERAL.—Except as otherwise pro-
10 vided in this subsection, the amendments made by
11 this section shall take effect on the date of the en-
12 actment of this Act.

13 (2) ALLOWANCE AGAINST ALTERNATIVE MIN-
14 IMUM TAX.—The amendments made by subsection
15 (b) shall apply to credits determined under section
16 46 of the Internal Revenue Code of 1986 in taxable
17 years beginning after the date of the enactment of
18 this Act and to carrybacks of such credits.

19 (3) INCREASE IN LIMITATION FOR FUEL CELL
20 PROPERTY.—The amendment made by subsection
21 (c) shall apply to periods after the date of the enact-
22 ment of this Act, in taxable years ending after such
23 date, under rules similar to the rules of section
24 48(m) of the Internal Revenue Code of 1986 (as in

1 effect on the day before the date of the enactment
2 of the Revenue Reconciliation Act of 1990).

3 (4) PUBLIC ELECTRIC UTILITY PROPERTY.—

4 The amendments made by subsection (d) shall apply
5 to periods after June 20, 2007, in taxable years end-
6 ing after such date, under rules similar to the rules
7 of section 48(m) of the Internal Revenue Code of
8 1986 (as in effect on the day before the date of the
9 enactment of the Revenue Reconciliation Act of
10 1990).

11 **SEC. 11004. NEW CLEAN RENEWABLE ENERGY BONDS.**

12 (a) IN GENERAL.—Part IV of subchapter A of chap-
13 ter 1 (relating to credits against tax) is amended by add-
14 ing at the end the following new subpart:

15 **“Subpart I—Qualified Tax Credit Bonds**

“Sec. 54A. Credit to holders of qualified tax credit bonds.

“Sec. 54B. New clean renewable energy bonds.

16 **“SEC. 54A. CREDIT TO HOLDERS OF QUALIFIED TAX CRED-**
17 **IT BONDS.**

18 “(a) ALLOWANCE OF CREDIT.—If a taxpayer holds
19 a qualified tax credit bond on one or more credit allowance
20 dates of the bond during any taxable year, there shall be
21 allowed as a credit against the tax imposed by this chapter
22 for the taxable year an amount equal to the sum of the
23 credits determined under subsection (b) with respect to
24 such dates.

1 “(b) AMOUNT OF CREDIT.—

2 “(1) IN GENERAL.—The amount of the credit
3 determined under this subsection with respect to any
4 credit allowance date for a qualified tax credit bond
5 is 25 percent of the annual credit determined with
6 respect to such bond.

7 “(2) ANNUAL CREDIT.—The annual credit de-
8 termined with respect to any qualified tax credit
9 bond is the product of—

10 “(A) the applicable credit rate, multiplied
11 by

12 “(B) the outstanding face amount of the
13 bond.

14 “(3) APPLICABLE CREDIT RATE.—For purposes
15 of paragraph (2), the applicable credit rate is the
16 rate which the Secretary estimates will permit the
17 issuance of qualified tax credit bonds with a speci-
18 fied maturity or redemption date without discount
19 and without interest cost to the qualified issuer. The
20 applicable credit rate with respect to any qualified
21 tax credit bond shall be determined as of the first
22 day on which there is a binding, written contract for
23 the sale or exchange of the bond.

24 “(4) SPECIAL RULE FOR ISSUANCE AND RE-
25 DEMPTION.—In the case of a bond which is issued

1 during the 3-month period ending on a credit allow-
2 ance date, the amount of the credit determined
3 under this subsection with respect to such credit al-
4 lowance date shall be a ratable portion of the credit
5 otherwise determined based on the portion of the 3-
6 month period during which the bond is outstanding.
7 A similar rule shall apply when the bond is redeemed
8 or matures.

9 “(c) LIMITATION BASED ON AMOUNT OF TAX.—

10 “(1) IN GENERAL.—The credit allowed under
11 subsection (a) for any taxable year shall not exceed
12 the excess of—

13 “(A) the sum of the regular tax liability
14 (as defined in section 26(b)) plus the tax im-
15 posed by section 55, over

16 “(B) the sum of the credits allowable
17 under this part (other than subpart C and this
18 subpart).

19 “(2) CARRYOVER OF UNUSED CREDIT.—If the
20 credit allowable under subsection (a) exceeds the
21 limitation imposed by paragraph (1) for such taxable
22 year, such excess shall be carried to the succeeding
23 taxable year and added to the credit allowable under
24 subsection (a) for such taxable year (determined be-

1 fore the application of paragraph (1) for such suc-
2 ceeding taxable year).

3 “(d) QUALIFIED TAX CREDIT BOND.—For purposes
4 of this section—

5 “(1) QUALIFIED TAX CREDIT BOND.—The term
6 ‘qualified tax credit bond’ means a new clean renew-
7 able energy bond which is part of an issue that
8 meets the requirements of paragraphs (2), (3), (4),
9 (5), and (6).

10 “(2) SPECIAL RULES RELATING TO EXPENDI-
11 TURES.—

12 “(A) IN GENERAL.—An issue shall be
13 treated as meeting the requirements of this
14 paragraph if, as of the date of issuance, the
15 issuer reasonably expects—

16 “(i) 100 percent or more of the avail-
17 able project proceeds to be spent for 1 or
18 more qualified purposes within the 3-year
19 period beginning on such date of issuance,
20 and

21 “(ii) a binding commitment with a
22 third party to spend at least 10 percent of
23 such available project proceeds will be in-
24 curred within the 6-month period begin-
25 ning on such date of issuance.

1 “(B) FAILURE TO SPEND REQUIRED
2 AMOUNT OF BOND PROCEEDS WITHIN 3
3 YEARS.—

4 “(i) IN GENERAL.—To the extent that
5 less than 100 percent of the available
6 project proceeds of the issue are expended
7 by the close of the expenditure period for
8 1 or more qualified purposes, the issuer
9 shall redeem all of the nonqualified bonds
10 within 90 days after the end of such pe-
11 riod. For purposes of this paragraph, the
12 amount of the nonqualified bonds required
13 to be redeemed shall be determined in the
14 same manner as under section 142.

15 “(ii) EXPENDITURE PERIOD.—For
16 purposes of this subpart, the term ‘expen-
17 diture period’ means, with respect to any
18 issue, the 3-year period beginning on the
19 date of issuance. Such term shall include
20 any extension of such period under clause
21 (iii).

22 “(iii) EXTENSION OF PERIOD.—Upon
23 submission of a request prior to the expira-
24 tion of the expenditure period (determined
25 without regard to any extension under this

1 clause), the Secretary may extend such pe-
2 riod if the issuer establishes that the fail-
3 ure to expend the proceeds within the
4 original expenditure period is due to rea-
5 sonable cause and the expenditures for
6 qualified purposes will continue to proceed
7 with due diligence.

8 “(C) QUALIFIED PURPOSE.—For purposes
9 of this paragraph, the term ‘qualified purpose’
10 means a purpose specified in section 54B(a)(1).

11 “(D) REIMBURSEMENT.—For purposes of
12 this subtitle, available project proceeds of an
13 issue shall be treated as spent for a qualified
14 purpose if such proceeds are used to reimburse
15 the issuer for amounts paid for a qualified pur-
16 pose after the date that the Secretary makes an
17 allocation of bond limitation with respect to
18 such issue, but only if—

19 “(i) prior to the payment of the origi-
20 nal expenditure, the issuer declared its in-
21 tent to reimburse such expenditure with
22 the proceeds of a qualified tax credit bond,

23 “(ii) not later than 60 days after pay-
24 ment of the original expenditure, the issuer
25 adopts an official intent to reimburse the

1 original expenditure with such proceeds,
2 and

3 “(iii) the reimbursement is made not
4 later than 18 months after the date the
5 original expenditure is paid.

6 “(3) REPORTING.—An issue shall be treated as
7 meeting the requirements of this paragraph if the
8 issuer of qualified tax credit bonds submits reports
9 similar to the reports required under section 149(e).

10 “(4) SPECIAL RULES RELATING TO ARBI-
11 TRAGE.—

12 “(A) IN GENERAL.—An issue shall be
13 treated as meeting the requirements of this
14 paragraph if the issuer satisfies the require-
15 ments of section 148 with respect to the pro-
16 ceeds of the issue.

17 “(B) SPECIAL RULE FOR INVESTMENTS
18 DURING EXPENDITURE PERIOD.—An issue shall
19 not be treated as failing to meet the require-
20 ments of subparagraph (A) by reason of any in-
21 vestment of available project proceeds during
22 the expenditure period.

23 “(C) SPECIAL RULE FOR RESERVE
24 FUNDS.—An issue shall not be treated as fail-
25 ing to meet the requirements of subparagraph

1 (A) by reason of any fund which is expected to
2 be used to repay such issue if—

3 “(i) such fund is funded at a rate not
4 more rapid than equal annual installments,

5 “(ii) such fund is funded in a manner
6 that such fund will not exceed the amount
7 necessary to repay the issue if invested at
8 the maximum rate permitted under clause
9 (iii), and

10 “(iii) the yield on such fund is not
11 greater than the discount rate determined
12 under paragraph (5)(B) with respect to the
13 issue.

14 “(5) MATURITY LIMITATION.—

15 “(A) IN GENERAL.—An issue shall not be
16 treated as meeting the requirements of this
17 paragraph if the maturity of any bond which is
18 part of such issue exceeds the maximum term
19 determined by the Secretary under subpara-
20 graph (B).

21 “(B) MAXIMUM TERM.—During each cal-
22 endar month, the Secretary shall determine the
23 maximum term permitted under this paragraph
24 for bonds issued during the following calendar
25 month. Such maximum term shall be the term

1 which the Secretary estimates will result in the
2 present value of the obligation to repay the
3 principal on the bond being equal to 50 percent
4 of the face amount of such bond. Such present
5 value shall be determined using as a discount
6 rate the average annual interest rate of tax-ex-
7 empt obligations having a term of 10 years or
8 more which are issued during the month. If the
9 term as so determined is not a multiple of a
10 whole year, such term shall be rounded to the
11 next highest whole year.

12 “(6) PROHIBITION ON FINANCIAL CONFLICTS
13 OF INTEREST.—An issue shall be treated as meeting
14 the requirements of this paragraph if the issuer cer-
15 tifies that—

16 “(A) applicable State and local law re-
17 quirements governing conflicts of interest are
18 satisfied with respect to such issue, and

19 “(B) if the Secretary prescribes additional
20 conflicts of interest rules governing the appro-
21 priate Members of Congress, Federal, State,
22 and local officials, and their spouses, such addi-
23 tional rules are satisfied with respect to such
24 issue.

1 “(e) OTHER DEFINITIONS.—For purposes of this
2 subchapter—

3 “(1) CREDIT ALLOWANCE DATE.—The term
4 ‘credit allowance date’ means—

5 “(A) March 15,

6 “(B) June 15,

7 “(C) September 15, and

8 “(D) December 15.

9 Such term includes the last day on which the bond
10 is outstanding.

11 “(2) BOND.—The term ‘bond’ includes any ob-
12 ligation.

13 “(3) STATE.—The term ‘State’ includes the
14 District of Columbia and any possession of the
15 United States.

16 “(4) AVAILABLE PROJECT PROCEEDS.—The
17 term ‘available project proceeds’ means—

18 “(A) the excess of—

19 “(i) the proceeds from the sale of an
20 issue, over

21 “(ii) the issuance costs financed by
22 the issue (to the extent that such costs do
23 not exceed 2 percent of such proceeds),
24 and

1 “(B) the proceeds from any investment of
2 the excess described in subparagraph (A).

3 “(f) CREDIT TREATED AS INTEREST.—For purposes
4 of this subtitle, the credit determined under subsection (a)
5 shall be treated as interest which is includible in gross in-
6 come.

7 “(g) S CORPORATIONS AND PARTNERSHIPS.—In the
8 case of a tax credit bond held by an S corporation or part-
9 nership, the allocation of the credit allowed by this section
10 to the shareholders of such corporation or partners of such
11 partnership shall be treated as a distribution.

12 “(h) BONDS HELD BY REGULATED INVESTMENT
13 COMPANIES AND REAL ESTATE INVESTMENT TRUSTS.—
14 If any qualified tax credit bond is held by a regulated in-
15 vestment company or a real estate investment trust, the
16 credit determined under subsection (a) shall be allowed to
17 shareholders of such company or beneficiaries of such
18 trust (and any gross income included under subsection (f)
19 with respect to such credit shall be treated as distributed
20 to such shareholders or beneficiaries) under procedures
21 prescribed by the Secretary.

22 “(i) CREDITS MAY BE STRIPPED.—Under regula-
23 tions prescribed by the Secretary—

24 “(1) IN GENERAL.—There may be a separation
25 (including at issuance) of the ownership of a quali-

1 fied tax credit bond and the entitlement to the credit
2 under this section with respect to such bond. In case
3 of any such separation, the credit under this section
4 shall be allowed to the person who on the credit al-
5 lowance date holds the instrument evidencing the en-
6 titlement to the credit and not to the holder of the
7 bond.

8 “(2) CERTAIN RULES TO APPLY.—In the case
9 of a separation described in paragraph (1), the rules
10 of section 1286 shall apply to the qualified tax credit
11 bond as if it were a stripped bond and to the credit
12 under this section as if it were a stripped coupon.

13 **“SEC. 54B. NEW CLEAN RENEWABLE ENERGY BONDS.**

14 “(a) NEW CLEAN RENEWABLE ENERGY BOND.—For
15 purposes of this subpart, the term ‘new clean renewable
16 energy bond’ means any bond issued as part of an issue
17 if—

18 “(1) 100 percent of the available project pro-
19 ceeds of such issue are to be used for capital expend-
20 itures incurred by public power providers or coopera-
21 tive electric companies for one or more qualified re-
22 newable energy facilities,

23 “(2) the bond is issued by a qualified issuer,
24 and

1 “(3) the issuer designates such bond for pur-
2 poses of this section.

3 “(b) REDUCED CREDIT AMOUNT.—The annual credit
4 determined under section 54A(b) with respect to any new
5 clean renewable energy bond shall be 70 percent of the
6 amount so determined without regard to this subsection.

7 “(c) LIMITATION ON AMOUNT OF BONDS DES-
8 IGNATED.—

9 “(1) IN GENERAL.—The maximum aggregate
10 face amount of bonds which may be designated
11 under subsection (a) by any issuer shall not exceed
12 the limitation amount allocated under this sub-
13 section to such issuer.

14 “(2) NATIONAL LIMITATION ON AMOUNT OF
15 BONDS DESIGNATED.—There is a national new clean
16 renewable energy bond limitation of \$2,000,000,000
17 which shall be allocated by the Secretary as provided
18 in paragraph (3), except that—

19 “(A) not more than 60 percent thereof
20 may be allocated to qualified projects of public
21 power providers, and

22 “(B) not more than 40 percent thereof
23 may be allocated to qualified projects of cooper-
24 ative electric companies.

25 “(3) METHOD OF ALLOCATION.—

1 “(A) ALLOCATION AMONG PUBLIC POWER
2 PROVIDERS.—After the Secretary determines
3 the qualified projects of public power providers
4 which are appropriate for receiving an alloca-
5 tion of the national new clean renewable energy
6 bond limitation, the Secretary shall, to the max-
7 imum extent practicable, make allocations
8 among such projects in such manner that the
9 amount allocated to each such project bears the
10 same ratio to the cost of such project as the
11 limitation under subparagraph (2)(A) bears to
12 the cost of all such projects.

13 “(B) ALLOCATION AMONG COOPERATIVE
14 ELECTRIC COMPANIES.—The Secretary shall
15 make allocations of the amount of the national
16 new clean renewable energy bond limitation de-
17 scribed in paragraph (2)(B) among qualified
18 projects of cooperative electric companies in
19 such manner as the Secretary determines ap-
20 propriate.

21 “(d) DEFINITIONS.—For purposes of this section—

22 “(1) QUALIFIED RENEWABLE ENERGY FACIL-
23 ITY.—The term ‘qualified renewable energy facility’
24 means a qualified facility (as determined under sec-
25 tion 45(d) without regard to paragraphs (8) and

1 (10) thereof and to any placed in service date)
2 owned by a public power provider or a cooperative
3 electric company.

4 “(2) PUBLIC POWER PROVIDER.—The term
5 ‘public power provider’ means a State utility with a
6 service obligation, as such terms are defined in sec-
7 tion 217 of the Federal Power Act (as in effect on
8 the date of the enactment of this paragraph).

9 “(3) COOPERATIVE ELECTRIC COMPANY.—The
10 term ‘cooperative electric company’ means a mutual
11 or cooperative electric company described in section
12 501(c)(12) or section 1381(a)(2)(C).

13 “(4) CLEAN RENEWABLE ENERGY BOND LEND-
14 ER.—The term ‘clean renewable energy bond lender’
15 means a lender which is a cooperative which is
16 owned by, or has outstanding loans to, 100 or more
17 cooperative electric companies and is in existence on
18 February 1, 2002, and shall include any affiliated
19 entity which is controlled by such lender.

20 “(5) QUALIFIED ISSUER.—The term ‘qualified
21 issuer’ means a public power provider, a cooperative
22 electric company, a clean renewable energy bond
23 lender, or a not-for-profit electric utility which has
24 received a loan or loan guarantee under the Rural
25 Electrification Act.”.

1 (b) REPORTING.—Subsection (d) of section 6049 (re-
2 lating to returns regarding payments of interest) is
3 amended by adding at the end the following new para-
4 graph:

5 “(9) REPORTING OF CREDIT ON QUALIFIED
6 TAX CREDIT BONDS.—

7 “(A) IN GENERAL.—For purposes of sub-
8 section (a), the term ‘interest’ includes amounts
9 includible in gross income under section 54A
10 and such amounts shall be treated as paid on
11 the credit allowance date (as defined in section
12 54A(e)(1)).

13 “(B) REPORTING TO CORPORATIONS,
14 ETC.—Except as otherwise provided in regula-
15 tions, in the case of any interest described in
16 subparagraph (A) of this paragraph, subsection
17 (b)(4) of this section shall be applied without
18 regard to subparagraphs (A), (H), (I), (J), (K),
19 and (L)(i).

20 “(C) REGULATORY AUTHORITY.—The Sec-
21 retary may prescribe such regulations as are
22 necessary or appropriate to carry out the pur-
23 poses of this paragraph, including regulations
24 which require more frequent or more detailed
25 reporting.”.

1 (c) CONFORMING AMENDMENTS.—

2 (1) Sections 54(c)(2) and 1400N(l)(3)(B) are
 3 each amended by striking “subpart C” and inserting
 4 “subparts C and I”.

5 (2) Section 1397E(c)(2) is amended by striking
 6 “subpart H” and inserting “subparts H and I”.

7 (3) Section 6401(b)(1) is amended by striking
 8 “and H” and inserting “H, and I”.

9 (4) The heading of subpart H of part IV of
 10 subchapter A of chapter 1 is amended by striking
 11 “**Certain Bonds**” and inserting “**Clean Re-**
 12 **newable Energy Bonds**”.

13 (5) The table of subparts for part IV of sub-
 14 chapter A of chapter 1 is amended by striking the
 15 item relating to subpart H and inserting the fol-
 16 lowing new items:

“SUBPART H. NONREFUNDABLE CREDIT TO HOLDERS OF CLEAN RENEWABLE
 ENERGY BONDS.

“SUBPART I. QUALIFIED TAX CREDIT BONDS.”.

17 (d) EFFECTIVE DATES.—The amendments made by
 18 this section shall apply to obligations issued after the date
 19 of the enactment of this Act.

1 **SEC. 11005. EXTENSION AND MODIFICATION OF SPECIAL**
2 **RULE TO IMPLEMENT FERC AND STATE**
3 **ELECTRIC RESTRUCTURING POLICY.**

4 (a) EXTENSION FOR QUALIFIED ELECTRIC UTILI-
5 TIES.—

6 (1) IN GENERAL.—Paragraph (3) of section
7 451(i) (relating to special rule for sales or disposi-
8 tions to implement Federal Energy Regulatory Com-
9 mission or State electric restructuring policy) is
10 amended by striking “before January 1, 2008,” and
11 inserting “before January 1, 2010, by a qualified
12 electric utility,”.

13 (2) QUALIFIED ELECTRIC UTILITY.—Subsection
14 (i) of section 451 is amended by redesignating para-
15 graphs (6) through (10) as paragraphs (7) through
16 (11), respectively, and by inserting after paragraph
17 (5) the following new paragraph:

18 “(6) QUALIFIED ELECTRIC UTILITY.—For pur-
19 poses of this subsection, the term ‘qualified electric
20 utility’ means—

21 “(A) an electric utility (as defined in sec-
22 tion 3(22) of the Federal Power Act (16 U.S.C.
23 796(22))), and

24 “(B) any person in the same holding com-
25 pany system (as defined in section 1262(9) of
26 the Public Utility Holding Company Act of

1 2005 (42 U.S.C. 16451(9))) as an electric util-
2 ity referred to subparagraph (A).”.

3 (b) EXTENSION OF PERIOD FOR TRANSFER OF
4 OPERATIONAL CONTROL AUTHORIZED BY FERC.—
5 Clause (ii) of section 451(i)(4)(B) is amended by striking
6 “December 31, 2007” and inserting “the date which is
7 4 years after the close of the taxable year in which the
8 transaction occurs”.

9 (c) PROPERTY LOCATED OUTSIDE THE UNITED
10 STATES NOT TREATED AS EXEMPT UTILITY PROP-
11 erty.—Paragraph (5) of section 451(i) is amended by
12 adding at the end the following new subparagraph:

13 “(C) EXCEPTION FOR PROPERTY LOCATED
14 OUTSIDE THE UNITED STATES.—The term ‘ex-
15 empt utility property’ shall not include any
16 property which is located outside the United
17 States.”.

18 (d) EFFECTIVE DATES.—

19 (1) EXTENSION.—The amendment made by
20 subsection (a) shall apply to transactions after De-
21 cember 31, 2007.

22 (2) TRANSFERS OF OPERATIONAL CONTROL.—
23 The amendment made by subsection (b) shall take
24 effect as if included in section 909 of the American
25 Jobs Creation Act of 2004.

1 (3) EXCEPTION FOR PROPERTY LOCATED OUT-
2 SIDE THE UNITED STATES.—The amendment made
3 by subsection (c) shall apply to transactions after
4 the date of the enactment of this Act.

5 **SEC. 11006. REPEAL OF DOLLAR LIMITATION AND ALLOW-**
6 **ANCE AGAINST ALTERNATIVE MINIMUM TAX**
7 **FOR RESIDENTIAL SOLAR AND FUEL CELL**
8 **PROPERTY CREDIT.**

9 (a) REPEAL OF MAXIMUM DOLLAR LIMITATION.—

10 (1) IN GENERAL.—Subsection (b) of section
11 25D (relating to limitations) is amended to read as
12 follows:

13 “(b) CERTIFICATION OF SOLAR WATER HEATING
14 PROPERTY.—No credit shall be allowed under this section
15 for an item of property described in subsection (d)(1) un-
16 less such property is certified for performance by the non-
17 profit Solar Rating Certification Corporation or a com-
18 parable entity endorsed by the government of the State
19 in which such property is installed.”.

20 (2) CONFORMING AMENDMENTS.—

21 (A) Subsection (e) of section 25D is
22 amended by striking paragraph (4) and by re-
23 designating paragraphs (5) through (9) as
24 paragraphs (4) through (8), respectively.

1 (B) Paragraph (1) of section 25C(e) is
 2 amended by striking “(8), and (9)” and insert-
 3 ing “and (8) (and paragraph (4) as in effect be-
 4 fore its repeal by the Renewable Energy and
 5 Energy Conservation Tax Act of 2007)”.

6 (b) CREDIT ALLOWED AGAINST ALTERNATIVE MIN-
 7 IMUM TAX.—

8 (1) IN GENERAL.—Subsection (c) of section
 9 25D is amended to read as follows:

10 “(c) LIMITATION BASED ON AMOUNT OF TAX;
 11 CARRYFORWARD OF UNUSED CREDIT.—

12 “(1) LIMITATION BASED ON AMOUNT OF
 13 TAX.—In the case of a taxable year to which section
 14 26(a)(2) does not apply, the credit allowed under
 15 subsection (a) for the taxable year shall not exceed
 16 the excess of—

17 “(A) the sum of the regular tax liability
 18 (as defined in section 26(b)) plus the tax im-
 19 posed by section 55, over

20 “(B) the sum of the credits allowable
 21 under this subpart (other than this section) and
 22 section 27 for the taxable year.

23 “(2) CARRYFORWARD OF UNUSED CREDIT.—

24 “(A) RULE FOR YEARS IN WHICH ALL
 25 PERSONAL CREDITS ALLOWED AGAINST REG-

1 ULAR AND ALTERNATIVE MINIMUM TAX.—In
2 the case of a taxable year to which section
3 26(a)(2) applies, if the credit allowable under
4 subsection (a) exceeds the limitation imposed by
5 section 26(a)(2) for such taxable year reduced
6 by the sum of the credits allowable under this
7 subpart (other than this section), such excess
8 shall be carried to the succeeding taxable year
9 and added to the credit allowable under sub-
10 section (a) for such succeeding taxable year.

11 “(B) RULE FOR OTHER YEARS.—In the
12 case of a taxable year to which section 26(a)(2)
13 does not apply, if the credit allowable under
14 subsection (a) exceeds the limitation imposed by
15 paragraph (1) for such taxable year, such ex-
16 cess shall be carried to the succeeding taxable
17 year and added to the credit allowable under
18 subsection (a) for such succeeding taxable
19 year.”.

20 (2) CONFORMING AMENDMENTS.—

21 (A) Section 23(b)(4)(B) is amended by in-
22 serting “and section 25D” after “this section”.

23 (B) Section 24(b)(3)(B) is amended by
24 striking “and 25B” and inserting “, 25B, and
25 25D”.

1 (C) Section 25B(g)(2) is amended by strik-
2 ing “section 23” and inserting “sections 23 and
3 25D”.

4 (D) Section 26(a)(1) is amended by strik-
5 ing “and 25B” and inserting “25B, and 25D”.

6 (c) EFFECTIVE DATES.—

7 (1) IN GENERAL.—Except as otherwise pro-
8 vided in this subsection, the amendments made by
9 this section shall apply to expenditures made after
10 the date of the enactment of this Act.

11 (2) ALLOWANCE AGAINST ALTERNATIVE MIN-
12 IMUM TAX.—

13 (A) IN GENERAL.—The amendments made
14 by subsection (b) shall apply to taxable years
15 beginning after the date of the enactment of
16 this Act.

17 (B) APPLICATION OF EGTRRA SUNSET.—
18 The amendments made by subparagraphs (A)
19 and (B) of subsection (b)(2) shall be subject to
20 title IX of the Economic Growth and Tax Relief
21 Reconciliation Act of 2001 in the same manner
22 as the provisions of such Act to which such
23 amendments relate.

TITLE XII—CONSERVATION

Subtitle A—Transportation

SEC. 12001. CREDIT FOR PLUG-IN HYBRID VEHICLES.

(a) IN GENERAL.—Subpart B of part IV of subchapter A of chapter 1 (relating to other credits) is amended by adding at the end the following new section:

“SEC. 30D. PLUG-IN HYBRID VEHICLES.

“(a) ALLOWANCE OF CREDIT.—There shall be allowed as a credit against the tax imposed by this chapter for the taxable year an amount equal to the sum of the credit amounts determined under subsection (b) with respect to each qualified plug-in hybrid vehicle placed in service by the taxpayer during the taxable year.

“(b) PER VEHICLE DOLLAR LIMITATION.—

“(1) IN GENERAL.—The amount determined under this subsection with respect to any qualified plug-in hybrid vehicle is the sum of the amounts determined under paragraphs (2) and (3) with respect to such vehicle.

“(2) BASE AMOUNT.—The amount determined under this paragraph is \$4,000.

“(3) BATTERY CAPACITY.—In the case of vehicle which draws propulsion energy from a battery with not less than 5 kilowatt hours of capacity, the amount determined under this paragraph is \$200,

1 plus \$200 for each kilowatt hour of capacity in ex-
2 cess of 5 kilowatt hours. The amount determined
3 under this paragraph shall not exceed \$2,000.

4 “(c) APPLICATION WITH OTHER CREDITS.—

5 “(1) BUSINESS CREDIT TREATED AS PART OF
6 GENERAL BUSINESS CREDIT.—So much of the credit
7 which would be allowed under subsection (a) for any
8 taxable year (determined without regard to this sub-
9 section) that is attributable to property of a char-
10 acter subject to an allowance for depreciation shall
11 be treated as a credit listed in section 38(b) for such
12 taxable year (and not allowed under subsection (a)).

13 “(2) PERSONAL CREDIT.—

14 “(A) IN GENERAL.—For purposes of this
15 title, the credit allowed under subsection (a) for
16 any taxable year (determined after application
17 of paragraph (1)) shall be treated as a credit
18 allowable under subpart A for such taxable
19 year.

20 “(B) LIMITATION BASED ON AMOUNT OF
21 TAX.—In the case of a taxable year to which
22 section 26(a)(2) does not apply, the credit al-
23 lowed under subsection (a) for any taxable year
24 (determined after application of paragraph (1))
25 shall not exceed the excess of—

1 “(i) the sum of the regular tax liabil-
2 ity (as defined in section 26(b)) plus the
3 tax imposed by section 55, over

4 “(ii) the sum of the credits allowable
5 under subpart A (other than this section
6 and sections 23 and 25D) and section 27
7 for the taxable year.

8 “(d) QUALIFIED PLUG-IN HYBRID VEHICLE.—For
9 purposes of this section—

10 “(1) IN GENERAL.—The term ‘qualified plug-in
11 hybrid vehicle’ means a motor vehicle (as defined in
12 section 30(c)(2))—

13 “(A) the original use of which commences
14 with the taxpayer,

15 “(B) which is acquired for use or lease by
16 the taxpayer and not for resale,

17 “(C) which is made by a manufacturer,

18 “(D) which has a gross vehicle weight rat-
19 ing of less than 14,000 pounds,

20 “(E) which has received a certificate of
21 conformity under the Clean Air Act and meets
22 or exceeds the Bin 5 Tier II emission standard
23 established in regulations prescribed by the Ad-
24 ministrator of the Environmental Protection

1 Agency under section 202(i) of the Clean Air
2 Act for that make and model year vehicle,

3 “(F) which is propelled to a significant ex-
4 tent by an electric motor which draws electricity
5 from a battery which—

6 “(i) has a capacity of not less than 4
7 kilowatt hours, and

8 “(ii) is capable of being recharged
9 from an external source of electricity, and

10 “(G) which either—

11 “(i) is also propelled to a significant
12 extent by other than an electric motor, or

13 “(ii) has a significant onboard source
14 of electricity which also recharges the bat-
15 tery referred to in subparagraph (F).

16 “(2) EXCEPTION.—The term ‘qualified plug-in
17 hybrid vehicle’ shall not include any vehicle which is
18 not a passenger automobile or light truck if such ve-
19 hicle has a gross vehicle weight rating of less than
20 8,500 pounds.

21 “(3) OTHER TERMS.—The terms ‘passenger
22 automobile’, ‘light truck’, and ‘manufacturer’ have
23 the meanings given such terms in regulations pre-
24 scribed by the Administrator of the Environmental
25 Protection Agency for purposes of the administra-

1 tion of title II of the Clean Air Act (42 U.S.C. 7521
2 et seq.).

3 “(4) BATTERY CAPACITY.—The term ‘capacity’
4 means, with respect to any battery, the quantity of
5 electricity which the battery is capable of storing, ex-
6 pressed in kilowatt hours, as measured from a 100
7 percent state of charge to a 0 percent state of
8 charge.

9 “(e) LIMITATION ON NUMBER OF QUALIFIED PLUG-
10 IN HYBRID VEHICLES ELIGIBLE FOR CREDIT.—

11 “(1) IN GENERAL.—In the case of a qualified
12 plug-in hybrid vehicle sold during the phaseout pe-
13 riod, only the applicable percentage of the credit oth-
14 erwise allowable under subsection (a) shall be al-
15 lowed.

16 “(2) PHASEOUT PERIOD.—For purposes of this
17 subsection, the phaseout period is the period begin-
18 ning with the second calendar quarter following the
19 calendar quarter which includes the first date on
20 which the number of qualified plug-in hybrid vehicles
21 manufactured by the manufacturer of the vehicle re-
22 ferred to in paragraph (1) sold for use in the United
23 States after the date of the enactment of this sec-
24 tion, is at least 60,000.

1 “(3) APPLICABLE PERCENTAGE.—For purposes
2 of paragraph (1), the applicable percentage is—

3 “(A) 50 percent for the first 2 calendar
4 quarters of the phaseout period,

5 “(B) 25 percent for the 3d and 4th cal-
6 endar quarters of the phaseout period, and

7 “(C) 0 percent for each calendar quarter
8 thereafter.

9 “(4) CONTROLLED GROUPS.—Rules similar to
10 the rules of section 30B(f)(4) shall apply for pur-
11 poses of this subsection.

12 “(f) SPECIAL RULES.—

13 “(1) BASIS REDUCTION.—The basis of any
14 property for which a credit is allowable under sub-
15 section (a) shall be reduced by the amount of such
16 credit (determined without regard to subsection (c)).

17 “(2) RECAPTURE.—The Secretary shall, by reg-
18 ulations, provide for recapturing the benefit of any
19 credit allowable under subsection (a) with respect to
20 any property which ceases to be property eligible for
21 such credit.

22 “(3) PROPERTY USED OUTSIDE UNITED
23 STATES, ETC., NOT QUALIFIED.—No credit shall be
24 allowed under subsection (a) with respect to any
25 property referred to in section 50(b)(1) or with re-

1 spect to the portion of the cost of any property
2 taken into account under section 179.

3 “(4) ELECTION NOT TO TAKE CREDIT.—No
4 credit shall be allowed under subsection (a) for any
5 vehicle if the taxpayer elects to not have this section
6 apply to such vehicle.

7 “(5) PROPERTY USED BY TAX-EXEMPT ENTITY;
8 INTERACTION WITH AIR QUALITY AND MOTOR VEHI-
9 CLE SAFETY STANDARDS.—Rules similar to the rules
10 of paragraphs (6) and (10) of section 30B(h) shall
11 apply for purposes of this section.”.

12 (b) PLUG-IN VEHICLES NOT TREATED AS NEW
13 QUALIFIED HYBRID VEHICLES.—Section 30B(d)(3) is
14 amended by adding at the end the following new subpara-
15 graph:

16 “(D) EXCLUSION OF PLUG-IN VEHICLES.—
17 Any vehicle with respect to which a credit is al-
18 lowable under section 30D (determined without
19 regard to subsection (c) thereof) shall not be
20 taken into account under this section.”.

21 (c) CREDIT MADE PART OF GENERAL BUSINESS
22 CREDIT.—Section 38(b) is amended—

23 (1) by striking “and” each place it appears at
24 the end of any paragraph,

1 (2) by striking “plus” each place it appears at
2 the end of any paragraph,

3 (3) by striking the period at the end of para-
4 graph (31) and inserting “, plus”, and

5 (4) by adding at the end the following new
6 paragraph:

7 “(32) the portion of the plug-in hybrid vehicle
8 credit to which section 30D(c)(1) applies.”.

9 (d) CONFORMING AMENDMENTS.—

10 (1)(A) Section 24(b)(3)(B), as amended by this
11 Act, is amended by striking “and 25D” and insert-
12 ing “25D, and 30D”.

13 (B) Section 25(e)(1)(C)(ii) is amended by in-
14 serting “30D,” after “25D,”.

15 (C) Section 25B(g)(2), as amended by this Act,
16 is amended by striking “and 25D” and inserting “,
17 25D, and 30D”.

18 (D) Section 26(a)(1), as amended by this Act,
19 is amended by striking “and 25D” and inserting
20 “25D, and 30D”.

21 (E) Section 1400C(d)(2) is amended by striking
22 “and 25D” and inserting “25D, and 30D”.

23 (2) Section 1016(a) is amended by striking
24 “and” at the end of paragraph (36), by striking the
25 period at the end of paragraph (37) and inserting “,

1 and”, and by adding at the end the following new
2 paragraph:

3 “(38) to the extent provided in section
4 30D(f)(1).”.

5 (3) Section 6501(m) is amended by inserting
6 “30D(f)(4),” after “30C(e)(5),”.

7 (4) The table of sections for subpart B of part
8 IV of subchapter A of chapter 1 is amended by add-
9 ing at the end the following new item:

“Sec. 30D. Plug-in hybrid vehicles.”.

10 (e) TREATMENT OF ALTERNATIVE MOTOR VEHICLE
11 CREDIT AS A PERSONAL CREDIT.—

12 (1) IN GENERAL.—Paragraph (2) of section
13 30B(g) is amended to read as follows:

14 “(2) PERSONAL CREDIT.—The credit allowed
15 under subsection (a) for any taxable year (after ap-
16 plication of paragraph (1)) shall be treated as a
17 credit allowable under subpart A for such taxable
18 year.”.

19 (2) CONFORMING AMENDMENTS.—

20 (A) Subparagraph (A) of section 30C(d)(2)
21 is amended by striking “sections 27, 30, and
22 30B” and inserting “sections 27 and 30”.

23 (B) Paragraph (3) of section 55(c) is
24 amended by striking “30B(g)(2),”.

25 (f) EFFECTIVE DATE.—

1 (1) IN GENERAL.—Except as otherwise pro-
 2 vided in this subsection, the amendments made by
 3 this section shall apply to taxable years beginning
 4 after December 31, 2007.

5 (2) TREATMENT OF ALTERNATIVE MOTOR VE-
 6 HICLE CREDIT AS PERSONAL CREDIT.—The amend-
 7 ments made by subsection (e) shall apply to taxable
 8 years beginning after December 31, 2006.

9 (g) APPLICATION OF EGTRRA SUNSET.—The
 10 amendment made by subsection (d)(1)(A) shall be subject
 11 to title IX of the Economic Growth and Tax Relief Rec-
 12 onciliation Act of 2001 in the same manner as the provi-
 13 sion of such Act to which such amendment relates.

14 **SEC. 12002. EXTENSION AND MODIFICATION OF ALTER-**
 15 **NATIVE FUEL VEHICLE REFUELING PROP-**
 16 **ERTY CREDIT.**

17 (a) INCREASE IN CREDIT AMOUNT.—Section 30C
 18 (relating to alternative fuel vehicle refueling property cred-
 19 it) is amended—

20 (1) by striking “30 percent” in subsection (a)
 21 and inserting “50 percent”, and

22 (2) by striking “\$30,000” in subsection (b)(1)
 23 and inserting “\$50,000”.

24 (b) EXTENSION OF CREDIT.—Paragraph (2) of sec-
 25 tion 30C(g) (relating to termination) is amended by strik-

1 ing “December 31, 2009” and inserting “December 31,
2 2010”.

3 (c) EFFECTIVE DATE.—The amendments made by
4 this section shall apply to property placed in service after
5 the date of the enactment of this Act, in taxable years
6 ending after such date.

7 **SEC. 12003. EXTENSION AND MODIFICATION OF CREDITS**
8 **FOR BIODIESEL AND RENEWABLE DIESEL.**

9 (a) IN GENERAL.—Sections 40A(g), 6426(c)(6), and
10 6427(e)(5)(B) are each amended by striking “December
11 31, 2008” and inserting “December 31, 2010”.

12 (b) UNIFORM TREATMENT OF DIESEL PRODUCED
13 FROM BIOMASS.—Paragraph (3) of section 40A(f) is
14 amended—

15 (1) by striking “using a thermal
16 depolymerization process”, and

17 (2) by striking “or D396” in subparagraph (B)
18 and inserting “or other equivalent standard ap-
19 proved by the Secretary for fuels to be used in die-
20 sel-powered highway vehicles”.

21 (c) EFFECTIVE DATE.—

22 (1) IN GENERAL.—Except as provided in para-
23 graph (2), the amendments made by this section
24 shall apply to fuel produced, and sold or used, after
25 the date of the enactment of this Act.

1 (2) UNIFORM TREATMENT OF DIESEL PRO-
2 DUCED FROM BIOMASS.—The amendments made by
3 subsection (b) shall apply to fuel produced, and sold
4 or used, after the date which is 30 days after the
5 date of the enactment of this Act.

6 **SEC. 12004. CREDIT FOR PRODUCTION OF CELLULOSIC AL-**
7 **COHOL.**

8 (a) IN GENERAL.—Subsection (b) of section 40 is
9 amended by redesignating paragraph (5) as paragraph (6)
10 and by inserting after paragraph (4) the following new
11 paragraph:

12 “(5) CELLULOSIC ALCOHOL FUEL PRODUCER
13 CREDIT.—

14 “(A) IN GENERAL.—The cellulosic alcohol
15 fuel producer credit of any cellulosic alcohol fuel
16 producer for any taxable year is 50 cents for
17 each gallon of qualified cellulosic fuel produc-
18 tion of such producer.

19 “(B) QUALIFIED CELLULOSIC FUEL PRO-
20 DUCTION.—For purposes of this paragraph, the
21 term ‘qualified cellulosic fuel production’ means
22 any cellulosic alcohol which is produced by a
23 cellulosic alcohol fuel producer, and which dur-
24 ing the taxable year—

1 “(i) is sold by such producer to an-
2 other person—

3 “(I) for use by such other person
4 in the production of a qualified mix-
5 ture in such other person’s trade or
6 business (other than casual off-farm
7 production),

8 “(II) for use by such other per-
9 son as a fuel in a trade or business,
10 or

11 “(III) who sells such alcohol at
12 retail to another person and places
13 such alcohol in the fuel tank of such
14 other person, or

15 “(ii) is used or sold by such producer
16 for any purpose described in clause (i).

17 “(C) CELLULOSIC ALCOHOL.—For pur-
18 poses of this paragraph, the term ‘cellulosic al-
19 cohol’ means any alcohol which—

20 “(i) is produced in the United States
21 for use as a fuel in the United States, and

22 “(ii) is derived from any
23 lignocellulosic or hemicellulosic matter that
24 is available on a renewable or recurring
25 basis.

1 For purposes of this subparagraph, the term
2 ‘United States’ includes any possession of the
3 United States.

4 “(D) CELLULOSIC ALCOHOL FUEL PRO-
5 DUCER.—For purposes of this paragraph, the
6 term ‘cellulosic alcohol fuel producer’ means
7 any person who produces cellulosic alcohol in a
8 trade or business and is registered with the
9 Secretary as a cellulosic alcohol fuel producer.

10 “(E) ADDITIONAL DISTILLATION EX-
11 CLUDED.—The qualified cellulosic fuel produc-
12 tion of any producer for any taxable year shall
13 not include any alcohol which is purchased by
14 the producer and with respect to which such
15 producer increases the proof of the alcohol by
16 additional distillation.”.

17 (b) CONFORMING AMENDMENTS.—

18 (1) Subsection (a) of section 40 is amended by
19 striking “plus” at the end of paragraph (1), by
20 striking “plus” at the end of paragraph (2), by
21 striking the period at the end of paragraph (3) and
22 inserting “, plus”, and by adding at the end the fol-
23 lowing new paragraph:

24 “(4) in the case of a cellulosic alcohol fuel pro-
25 ducer, the cellulosic alcohol fuel producer credit.”.

(c) EFFECTIVE DATE.—The amendments made by this section shall apply to alcohol produced after December 31, 2007.

9 (a) IN GENERAL.—Paragraph (1) of section 132(f)
10 of the Internal Revenue Code of 1986 (relating to general
11 rule for qualified transportation fringe) is amended by
12 adding at the end the following:

(b) LIMITATION ON EXCLUSION.—Paragraph (2) of section 132(f) of such Code is amended by striking “and” at the end of subparagraph (A), by striking the period at the end of subparagraph (B) and inserting “, and”, and by adding at the end the following new subparagraph:

(c) DEFINITIONS.—Paragraph (5) of section 132(f) of such Code (relating to definitions) is amended by adding at the end the following:

1 “(F) DEFINITIONS RELATED TO BICYCLE
2 COMMUTING REIMBURSEMENT.—

3 “(i) QUALIFIED BICYCLE COMMUTING
4 REIMBURSEMENT.—The term ‘qualified bi-
5 cycle commuting reimbursement’ means,
6 with respect to any calendar year, any em-
7 ployer reimbursement during the 15-month
8 period beginning with the first day of such
9 calendar year for reasonable expenses in-
10 curred by the employee during such cal-
11 endar year for the purchase of a bicycle
12 and bicycle improvements, repair, and stor-
13 age, if such bicycle is regularly used for
14 travel between the employee’s residence
15 and place of employment.

16 “(ii) APPLICABLE ANNUAL LIMITA-
17 TION.—The term ‘applicable annual limita-
18 tion’ means, with respect to any employee
19 for any calendar year, the product of \$20
20 multiplied by the number of qualified bicy-
21 cle commuting months during such year.

22 “(iii) QUALIFIED BICYCLE COM-
23 MUTING MONTH.—The term ‘qualified bi-
24 cycle commuting month’ means, with re-

1 spect to any employee, any month during
 2 which such employee—

3 “(I) regularly uses the bicycle for
 4 a substantial portion of the travel be-
 5 tween the employee’s residence and
 6 place of employment, and

7 “(II) does not receive any benefit
 8 described in subparagraph (A), (B),
 9 or (C) of paragraph (1).”.

10 (d) CONSTRUCTIVE RECEIPT OF BENEFIT.—Para-
 11 graph (4) of section 132(f) is amended by inserting
 12 “(other than a qualified bicycle commuting reimburse-
 13 ment)” after “qualified transportation fringe”.

14 (e) EFFECTIVE DATE.—The amendments made by
 15 this section shall apply to taxable years beginning after
 16 December 31, 2007.

17 **SEC. 12006. MODIFICATION OF LIMITATION ON AUTO-**
 18 **MOBILE DEPRECIATION.**

19 (a) IN GENERAL.—Paragraph (5) of section 280F(d)
 20 of the Internal Revenue Code of 1986 (defining passenger
 21 automobile) is amended to read as follows:

22 “(5) PASSENGER AUTOMOBILE.—

23 “(A) IN GENERAL.—Except as provided in
 24 subparagraph (B), the term ‘passenger auto-
 25 mobile’ means any 4-wheeled vehicle—

1 “(i) which is primarily designed or
2 which can be used to carry passengers over
3 public streets, roads, or highways (except
4 any vehicle operated exclusively on a rail or
5 rails), and

6 “(ii) which is rated at not more than
7 14,000 pounds gross vehicle weight.

8 “(B) EXCEPTIONS.—The term ‘passenger
9 automobile’ shall not include—

10 “(i) any exempt-design vehicle, and

11 “(ii) any exempt-use vehicle.

12 “(C) EXEMPT-DESIGN VEHICLE.—The
13 term ‘exempt-design vehicle’ means—

14 “(i) any vehicle which, by reason of its
15 nature or design, is not likely to be used
16 more than a de minimis amount for per-
17 sonal purposes, and

18 “(ii) any vehicle—

19 “(I) which is designed to have a
20 seating capacity of more than 9 per-
21 sons behind the driver’s seat,

22 “(II) which is equipped with a
23 cargo area of at least 5 feet in interior
24 length which is an open area or is de-
25 signed for use as an open area but is

1 enclosed by a cap and is not readily
2 accessible directly from the passenger
3 compartment, or

4 “(III) has an integral enclosure,
5 fully enclosing the driver compartment
6 and load carrying device, does not
7 have seating rearward of the driver’s
8 seat, and has no body section pro-
9 truding more than 30 inches ahead of
10 the leading edge of the windshield.

11 “(D) EXEMPT-USE VEHICLE.—The term
12 ‘exempt-use vehicle’ means—

13 “(i) any ambulance, hearse, or com-
14 bination ambulance-hearse used by the tax-
15 payer directly in a trade or business,

16 “(ii) any vehicle used by the taxpayer
17 directly in the trade or business of trans-
18 porting persons or property for compensa-
19 tion or hire, and

20 “(iii) any truck or van if substantially
21 all of the use of such vehicle by the tax-
22 payer is directly in—

23 “(I) a farming business (within
24 the meaning of section 263A(e)(4)),

1 “(II) the transportation of a sub-
 2 stantial amount of equipment, sup-
 3 plies, or inventory, or

4 “(III) the moving or delivery of
 5 property which requires substantial
 6 cargo capacity.

7 “(E) RECAPTURE.—In the case of any ve-
 8 hicle which is not a passenger automobile by
 9 reason of being an exempt-use vehicle, if such
 10 vehicle ceases to be an exempt-use vehicle in
 11 any taxable year after the taxable year in which
 12 such vehicle is placed in service, a rule similar
 13 to the rule of subsection (b) shall apply.”.

14 (b) CONFORMING AMENDMENT.—Section 179(b) of
 15 such Code (relating to limitations) is amended by striking
 16 paragraph (6).

17 (c) EFFECTIVE DATE.—The amendments made by
 18 this section shall apply to property placed in service after
 19 December 31, 2007.

20 **SEC. 12007. RESTRUCTURING OF NEW YORK LIBERTY ZONE**
 21 **TAX CREDITS.**

22 (a) IN GENERAL.—Part I of subchapter Y of chapter
 23 1 is amended by redesignating section 1400L as section
 24 1400K and by adding at the end the following new section:

1 **“SEC. 1400L. NEW YORK LIBERTY ZONE TAX CREDITS.**

2 “(a) IN GENERAL.—In the case of a New York Lib-
3 erty Zone governmental unit, there shall be allowed as a
4 credit against any taxes imposed for any payroll period
5 by section 3402 for which such governmental unit is liable
6 under section 3403 an amount equal to so much of the
7 portion of the qualifying project expenditure amount allo-
8 cated under subsection (b)(3) to such governmental unit
9 for the calendar year as is allocated by such governmental
10 unit to such period under subsection (b)(4).

11 “(b) QUALIFYING PROJECT EXPENDITURE
12 AMOUNT.—For purposes of this section—

13 “(1) IN GENERAL.—The term ‘qualifying
14 project expenditure amount’ means, with respect to
15 any calendar year, the sum of—

16 “(A) the total expenditures paid or in-
17 curred during such calendar year by all New
18 York Liberty Zone governmental units and the
19 Port Authority of New York and New Jersey
20 for any portion of qualifying projects located
21 wholly within the City of New York, New York,
22 and

23 “(B) any such expenditures—

24 “(i) paid or incurred in any preceding
25 calendar year which begins after the date
26 of enactment of this section, and

1 “(ii) not previously allocated under
2 paragraph (3).

3 “(2) QUALIFYING PROJECT.—The term ‘quali-
4 fying project’ means any transportation infrastruc-
5 ture project, including highways, mass transit sys-
6 tems, railroads, airports, ports, and waterways, in or
7 connecting with the New York Liberty Zone (as de-
8 fined in section 1400K(h)), which is designated as a
9 qualifying project under this section jointly by the
10 Governor of the State of New York and the Mayor
11 of the City of New York, New York.

12 “(3) GENERAL ALLOCATION.—

13 “(A) IN GENERAL.—The Governor of the
14 State of New York and the Mayor of the City
15 of New York, New York, shall jointly allocate to
16 each New York Liberty Zone governmental unit
17 the portion of the qualifying project expenditure
18 amount which may be taken into account by
19 such governmental unit under subsection (a) for
20 any calendar year in the credit period.

21 “(B) AGGREGATE LIMIT.—The aggregate
22 amount which may be allocated under subpara-
23 graph (A) for all calendar years in the credit
24 period shall not exceed \$2,000,000,000.

1 “(C) ANNUAL LIMIT.—The aggregate
2 amount which may be allocated under subpara-
3 graph (A) for any calendar year in the credit
4 period shall not exceed the sum of—

5 “(i) \$169,000,000, plus

6 “(ii) the aggregate amount authorized
7 to be allocated under this paragraph for all
8 preceding calendar years in the credit pe-
9 riod which was not so allocated.

10 “(D) UNALLOCATED AMOUNTS AT END OF
11 CREDIT PERIOD.—If, as of the close of the cred-
12 it period, the amount under subparagraph (B)
13 exceeds the aggregate amount allocated under
14 subparagraph (A) for all calendar years in the
15 credit period, the Governor of the State of New
16 York and the Mayor of the City of New York,
17 New York, may jointly allocate to New York
18 Liberty Zone governmental units for any cal-
19 endar year in the 5-year period following the
20 credit period an amount equal to—

21 “(i) the lesser of—

22 “(I) such excess, or

23 “(II) the qualifying project ex-
24 penditure amount for such calendar
25 year, reduced by

1 “(ii) the aggregate amount allocated
2 under this subparagraph for all preceding
3 calendar years.

4 “(4) ALLOCATION TO PAYROLL PERIODS.—
5 Each New York Liberty Zone governmental unit
6 which has been allocated a portion of the qualifying
7 project expenditure amount under paragraph (3) for
8 a calendar year may allocate such portion to payroll
9 periods beginning in such calendar year as such gov-
10 ernmental unit determines appropriate.

11 “(c) CARRYOVER OF UNUSED ALLOCATIONS.—

12 “(1) IN GENERAL.—Except as provided in para-
13 graph (2), if the amount allocated under subsection
14 (b)(3) to a New York Liberty Zone governmental
15 unit for any calendar year exceeds the aggregate
16 taxes imposed by section 3402 for which such gov-
17 ernmental unit is liable under section 3403 for peri-
18 ods beginning in such year, such excess shall be car-
19 ried to the succeeding calendar year and added to
20 the allocation of such governmental unit for such
21 succeeding calendar year.

22 “(2) REALLOCATION.—If a New York Liberty
23 Zone governmental unit does not use an amount al-
24 located to it under subsection (b)(3) within the time
25 prescribed by the Governor of the State of New York

1 and the Mayor of the City of New York, New York,
2 then such amount shall after such time be treated
3 for purposes of subsection (b)(3) in the same man-
4 ner as if it had never been allocated.

5 “(d) DEFINITIONS AND SPECIAL RULES.—For pur-
6 poses of this section—

7 “(1) CREDIT PERIOD.—The term ‘credit period’
8 means the 12-year period beginning on January 1,
9 2008.

10 “(2) NEW YORK LIBERTY ZONE GOVERN-
11 MENTAL UNIT.—The term ‘New York Liberty Zone
12 governmental unit’ means—

13 “(A) the State of New York,

14 “(B) the City of New York, New York, and

15 “(C) any agency or instrumentality of such
16 State or City.

17 “(3) TREATMENT OF FUNDS.—Any expenditure
18 for a qualifying project taken into account for pur-
19 poses of the credit under this section shall be consid-
20 ered State and local funds for the purpose of any
21 Federal program.

22 “(4) TREATMENT OF CREDIT AMOUNTS FOR
23 PURPOSES OF WITHHOLDING TAXES.—For purposes
24 of this title, a New York Liberty Zone governmental
25 unit shall be treated as having paid to the Secretary,

1 on the day on which wages are paid to employees,
2 an amount equal to the amount of the credit allowed
3 to such entity under subsection (a) with respect to
4 such wages, but only if such governmental unit de-
5 ducts and withholds wages for such payroll period
6 under section 3401 (relating to wage withholding).

7 “(e) REPORTING.—The Governor of the State of New
8 York and the Mayor of the City of New York, New York,
9 shall jointly submit to the Secretary an annual report—

10 “(1) which certifies—

11 “(A) the qualifying project expenditure
12 amount for the calendar year, and

13 “(B) the amount allocated to each New
14 York Liberty Zone governmental unit under
15 subsection (b)(3) for the calendar year, and

16 “(2) includes such other information as the
17 Secretary may require to carry out this section.

18 “(f) GUIDANCE.—The Secretary may prescribe such
19 guidance as may be necessary or appropriate to ensure
20 compliance with the purposes of this section.”.

21 (b) TERMINATION OF SPECIAL ALLOWANCE AND EX-
22 PENSING.—Subparagraph (A) of section 1400K(b)(2), as
23 redesignated by subsection (a), is amended by striking the
24 parenthetical therein and inserting “(in the case of non-
25 residential real property and residential rental property,

1 the date of the enactment of the Renewable Energy and
 2 Energy Conservation Tax Act of 2007 or, if acquired pur-
 3 suant to a binding contract in effect on such enactment
 4 date, December 31, 2009)’’.

5 (c) CONFORMING AMENDMENTS.—

6 (1) Section 38(c)(3)(B) is amended by striking
 7 “section 1400L(a)” and inserting “section
 8 1400K(a)”.

9 (2) Section 168(k)(2)(D)(ii) is amended by
 10 striking “section 1400L(c)(2)” and inserting “sec-
 11 tion 1400K(c)(2)”.

12 (3) The table of sections for part I of sub-
 13 chapter Y of chapter 1 is amended by redesignating
 14 the item relating to section 1400L as an item relat-
 15 ing to section 1400K and by inserting after such
 16 item the following new item:

“Sec. 1400L. New York Liberty Zone tax credits.”.

17 (d) EFFECTIVE DATE.—The amendments made by
 18 this section shall take effect on the date of the enactment
 19 of this Act.

20 **Subtitle B—Other Conservation** 21 **Provisions**

22 **SEC. 12011. QUALIFIED ENERGY CONSERVATION BONDS.**

23 (a) IN GENERAL.—Subpart I of part IV of sub-
 24 chapter A of chapter 1, as added by section 104, is amend-
 25 ed by adding at the end the following new section:

1 **“SEC. 54C. QUALIFIED ENERGY CONSERVATION BONDS.**

2 **“(a) QUALIFIED ENERGY CONSERVATION BOND.—**

3 For purposes of this subchapter, the term ‘qualified en-
4 ergy conservation bond’ means any bond issued as part
5 of an issue if—

6 “(1) 100 percent of the available project pro-
7 ceeds of such issue are to be used for one or more
8 qualified conservation purposes,

9 “(2) the bond is issued by a State or local gov-
10 ernment, and

11 “(3) the issuer designates such bond for pur-
12 poses of this section.

13 **“(b) LIMITATION ON AMOUNT OF BONDS DES-**
14 **IGNATED.—**The maximum aggregate face amount of
15 bonds which may be designated under subsection (a) by
16 any issuer shall not exceed the limitation amount allocated
17 to such issuer under subsection (d).

18 **“(c) NATIONAL LIMITATION ON AMOUNT OF BONDS**
19 **DESIGNATED.—**There is a national qualified energy con-
20 servation bond limitation of \$3,600,000,000.

21 **“(d) ALLOCATIONS.—**

22 **“(1) IN GENERAL.—**The limitation applicable
23 under subsection (c) shall be allocated by the Sec-
24 retary among the States in proportion to the popu-
25 lation of the States.

1 “(2) ALLOCATIONS TO LARGEST LOCAL GOV-
2 ERNMENTS.—

3 “(A) IN GENERAL.—In the case of any
4 State in which there is a large local govern-
5 ment, each such local government shall be allo-
6 cated a portion of such State’s allocation which
7 bears the same ratio to the State’s allocation
8 (determined without regard to this subpara-
9 graph) as the population of such large local
10 government bears to the population of such
11 State.

12 “(B) ALLOCATION OF UNUSED LIMITATION
13 TO STATE.—The amount allocated under this
14 subsection to a large local government may be
15 reallocated by such local government to the
16 State in which such local government is located.

17 “(C) LARGE LOCAL GOVERNMENT.—For
18 purposes of this section, the term ‘large local
19 government’ means any municipality or county
20 if such municipality or county has a population
21 of 100,000 or more.

22 “(3) ALLOCATION TO ISSUERS; RESTRICTION
23 ON PRIVATE ACTIVITY BONDS.—Any allocation
24 under this subsection to a State or large local gov-
25 ernment shall be allocated by such State or large

1 local government to issuers within the State in a
2 manner that results in not less than 70 percent of
3 the allocation to such State or large local govern-
4 ment being used to designate bonds which are not
5 private activity bonds.

6 “(e) QUALIFIED CONSERVATION PURPOSE.—For
7 purposes of this section—

8 “(1) IN GENERAL.—The term ‘qualified con-
9 servation purpose’ means any of the following:

10 “(A) Capital expenditures incurred for
11 purposes of—

12 “(i) reducing energy consumption in
13 publicly-owned buildings by at least 20
14 percent,

15 “(ii) implementing green community
16 programs, or

17 “(iii) rural development involving the
18 production of electricity from renewable
19 energy resources.

20 “(B) Expenditures with respect to research
21 facilities, and research grants, to support re-
22 search in—

23 “(i) development of cellulosic ethanol
24 or other nonfossil fuels,

1 “(ii) technologies for the capture and
2 sequestration of carbon dioxide produced
3 through the use of fossil fuels,

4 “(iii) increasing the efficiency of exist-
5 ing technologies for producing nonfossil
6 fuels,

7 “(iv) automobile battery technologies
8 and other technologies to reduce fossil fuel
9 consumption in transportation, or

10 “(v) technologies to reduce energy use
11 in buildings.

12 “(C) Mass commuting facilities and related
13 facilities that reduce the consumption of energy,
14 including expenditures to reduce pollution from
15 vehicles used for mass commuting.

16 “(D) Demonstration projects designed to
17 promote the commercialization of—

18 “(i) green building technology,

19 “(ii) conversion of agricultural waste
20 for use in the production of fuel or other-
21 wise,

22 “(iii) advanced battery manufacturing
23 technologies,

24 “(iv) technologies to reduce peak use
25 of electricity, or

1 “(v) technologies for the capture and
2 sequestration of carbon dioxide emitted
3 from combusting fossil fuels in order to
4 produce electricity.

5 “(E) Public education campaigns to pro-
6 mote energy efficiency.

7 “(2) SPECIAL RULES FOR PRIVATE ACTIVITY
8 BONDS.—For purposes of this section, in the case of
9 any private activity bond, the term ‘qualified con-
10 servation purposes’ shall not include any expenditure
11 which is not a capital expenditure.

12 “(f) POPULATION.—

13 “(1) IN GENERAL.—The population of any
14 State or local government shall be determined for
15 purposes of this section as provided in section 146(j)
16 for the calendar year which includes the date of the
17 enactment of this section.

18 “(2) SPECIAL RULE FOR COUNTIES.—In deter-
19 mining the population of any county for purposes of
20 this section, any population of such county which is
21 taken into account in determining the population of
22 any municipality which is a large local government
23 shall not be taken into account in determining the
24 population of such county.

1 “(g) APPLICATION TO INDIAN TRIBAL GOVERN-
 2 MENTS.—An Indian tribal government shall be treated for
 3 purposes of this section in the same manner as a large
 4 local government, except that—

5 “(1) an Indian tribal government shall be treat-
 6 ed for purposes of subsection (d) as located within
 7 a State to the extent of so much of the population
 8 of such government as resides within such State,
 9 and

10 “(2) any bond issued by an Indian tribal gov-
 11 ernment shall be treated as a qualified energy con-
 12 servation bond only if issued as part of an issue the
 13 available project proceeds of which are used for pur-
 14 poses for which such Indian tribal government could
 15 issue bonds to which section 103(a) applies.”.

16 (b) CONFORMING AMENDMENTS.—

17 (1) Paragraph (1) of section 54A(d), as added
 18 by section 104, is amended to read as follows:

19 “(1) QUALIFIED TAX CREDIT BOND.—The term
 20 ‘qualified tax credit bond’ means—

21 “(A) a new clean renewable energy bond,
 22 or

23 “(B) a qualified energy conservation bond,
 24 which is part of an issue that meets requirements of
 25 paragraphs (2), (3), (4), and (5).”.

1 (2) Subparagraph (C) of section 54A(d)(2), as
2 added by section 104, is amended to read as follows:

3 “(C) QUALIFIED PURPOSE.—For purposes
4 of this paragraph, the term ‘qualified purpose’
5 means—

6 “(i) in the case of a new clean renew-
7 able energy bond, a purpose specified in
8 section 54B(a)(1), and

9 “(ii) in the case of a qualified energy
10 conservation bond, a purpose specified in
11 section 54C(a)(1).”.

12 (3) The table of sections for subpart I of part
13 IV of subchapter A of chapter 1 is amended by add-
14 ing at the end the following new item:

“Sec. 54C. Qualified energy conservation bonds.”.

15 (c) EFFECTIVE DATE.—The amendments made by
16 this section shall apply to obligations issued after the date
17 of the enactment of this Act.

18 **SEC. 12012. QUALIFIED RESIDENTIAL ENERGY EFFICIENCY**
19 **ASSISTANCE BONDS.**

20 (a) IN GENERAL.—Subpart I of part IV of sub-
21 chapter A of chapter 1 (as amended by this Act) is amend-
22 ed by adding at the end the following new section:

1 **“SEC. 54D. QUALIFIED RESIDENTIAL ENERGY EFFICIENCY**
2 **ASSISTANCE BONDS.**

3 “(a) QUALIFIED RESIDENTIAL ENERGY EFFICIENCY
4 ASSISTANCE BOND.—For purposes of this subchapter, the
5 term ‘qualified residential energy efficiency assistance
6 bond’ means any bond issued as part of an issue if—

7 “(1) 100 percent of the available project pro-
8 ceeds of such issue are to be used for 1 or more
9 qualified residential energy efficiency assistance pur-
10 poses,

11 “(2) not less than 20 percent of the available
12 project proceeds of such issue are to be used for 1
13 or more qualified low-income residential energy effi-
14 ciency assistance purposes,

15 “(3) repayments of principal and applicable in-
16 terest on financing provided by the issue are used
17 not later than the close of the 3-month period begin-
18 ning on the date the prepayment (or complete repay-
19 ment) is received to redeem bonds which are part of
20 the issue or to provide for 1 or more qualified resi-
21 dential energy efficiency assistance purposes,

22 “(4) the bond is issued by a State, and

23 “(5) the issuer designates such bond for pur-
24 poses of this section.

25 “(b) LIMITATION ON AMOUNT OF BONDS DES-
26 IGNATED.—The maximum aggregate face amount of

1 bonds which may be designated under subsection (a) by
2 any issuer shall not exceed the limitation amount allocated
3 under subsection (d) to such issuer.

4 “(c) NATIONAL LIMITATION ON AMOUNT OF BONDS
5 DESIGNATED.—There is a national qualified energy con-
6 servation bond limitation of \$2,400,000,000.

7 “(d) LIMITATION ALLOCATED AMONG STATES.—The
8 limitation under subsection (c) shall be allocated by the
9 Secretary among the States in proportion to the popu-
10 lation of the States.

11 “(e) QUALIFIED RESIDENTIAL ENERGY EFFICIENCY
12 ASSISTANCE PURPOSE.—For purposes of this section—

13 “(1) IN GENERAL.—The term ‘qualified resi-
14 dential energy efficiency assistance purpose’ means
15 any grant or low-interest loan to acquire (including
16 reasonable installation costs)—

17 “(A) any property which meets (at a min-
18 imum) the requirements of the Energy Star
19 program and which is to be installed in a dwell-
20 ing unit,

21 “(B) any property which uses wind, solar,
22 or geothermal energy or qualified fuel cell prop-
23 erty (as defined in section 48(c)(1)) to generate
24 electricity, or to heat or cool water, for use in

1 a dwelling unit (other than property described
2 in section 25D(e)(3)), and

3 “(C) any improvements to a dwelling unit
4 which are made pursuant to a plan certified by
5 an energy efficiency expert that such improve-
6 ment will yield at least a 20 percent reduction
7 in total household energy consumption related
8 to heating, cooling, lighting, and appliances.

9 “(2) GEOTHERMAL HEAT PUMP.—Any geo-
10 thermal heat pump to provide heating or cooling in
11 a dwelling unit described in paragraph (1)(B) shall
12 be treated as described in paragraph (1)(B).

13 “(3) DOLLAR LIMITATIONS.—

14 “(A) IN GENERAL.—Such term shall not
15 include any grant or loan for improvements de-
16 scribed in paragraph (1)(C) with respect to any
17 dwelling unit to the extent that such grant or
18 loan (when added to all other grants or loans
19 for such improvements) exceeds \$5,000.

20 “(B) INCREASED LIMITATION FOR CER-
21 TAIN PRINCIPAL RESIDENCES.—In the case of a
22 dwelling unit which is used as a principal resi-
23 dence (within the meaning of section 121) by
24 the recipient of the grant or loan referred to in
25 subparagraph (A)—

1 “(i) subparagraph (A) shall be applied
2 by substituting ‘\$12,000’ for ‘\$5,000’ if
3 such grant or loan would satisfy the re-
4 quirements of paragraph (1)(A) if such
5 paragraph were applied by substituting ‘50
6 percent’ for ‘20 percent’, and

7 “(ii) in any case to which clause (i)
8 does not apply, subparagraph (A) shall be
9 applied by substituting ‘\$8,000’ for
10 ‘\$5,000’ if such grant or loan would satisfy
11 the requirements of paragraph (1)(A) if
12 such paragraph were applied by sub-
13 stituting ‘35 percent’ for ‘20 percent’.

14 “(4) LOW-INTEREST LOAN.—The term ‘low in-
15 terest loan’ means any loan which charges interest
16 at a rate which does not exceed the applicable Fed-
17 eral rate in effect under section 1288(b)(1) deter-
18 mined as of the issuance of the loan.

19 “(5) EXCLUSION OF CERTAIN PROPERTY.—The
20 following property shall not be taken into account
21 for purposes of paragraph (1)(A):

22 “(A) Any equipment used in connection
23 with a swimming pool, hot tub, or similar prop-
24 erty.

25 “(B) Any television.

1 “(C) Any device for converting digital sig-
2 nal to analog.

3 “(D) Any DVD player.

4 “(E) Any video cassette recorder (VCR).

5 “(F) Any audio equipment.

6 “(G) Any cordless phone.

7 “(H) Any other item of property where
8 there is substantial recreational use.

9 “(f) QUALIFIED LOW-INCOME RESIDENTIAL EFFI-
10 CIENCY ASSISTANCE PURPOSE.—For purposes of this sec-
11 tion—

12 “(1) IN GENERAL.—The term ‘qualified low-in-
13 come residential energy efficiency assistance pur-
14 pose’ means any qualified residential energy effi-
15 ciency assistance purpose with respect to a dwelling
16 unit which is occupied (at the time of the grant or
17 loan) by individuals whose income is 50 percent or
18 less of area median gross income. Rules similar to
19 the rules of section 142(d)(2)(B) shall apply for pur-
20 poses of this paragraph.

21 “(2) RESTRICTION TO GRANTS.—Such term
22 shall not include any loan.

23 “(g) DEFINITIONS AND SPECIAL RULES.—For pur-
24 poses of this section—

1 “(1) APPLICABLE INTEREST.—The term ‘appli-
2 cable interest’ means, with respect to any loan, so
3 much of any interest on such loan which exceeds 1
4 percentage point.

5 “(2) SPECIAL RULE RELATING TO ARBI-
6 TRAGE.—An issue shall not be treated as failing to
7 meet the requirements of section 54A(d)(4)(A) by
8 reason of any investment of available project pro-
9 ceeds in 1 or more qualified residential energy effi-
10 ciency assistance purposes.

11 “(3) POPULATION.—The population of any
12 State or local government shall be determined as
13 provided in section 146(j) for the calendar year
14 which includes the date of the enactment of this sec-
15 tion.

16 “(4) REPORTING.—

17 “(A) REPORTS BY ISSUERS.—Issuers of
18 qualified residential energy efficiency assistance
19 bonds shall, not later than 6 months after the
20 expenditure period (as defined in section 54A)
21 and annually thereafter until the last such bond
22 is redeemed, submit reports to the Secretary re-
23 garding such bonds, including information re-
24 garding—

1 “(i) the number and monetary value
2 of loans and grants provided and the pur-
3 poses for which provided,

4 “(ii) the number of dwelling units the
5 energy efficiency of which improved as re-
6 sult of such loans and grants,

7 “(iii) the types of property described
8 in subsection (e)(1)(A) installed as a result
9 of such loans and grants and the projected
10 energy savings with respect to such prop-
11 erty,

12 “(iv) the types of property described
13 in subsection (e)(1)(B) installed as a result
14 of such loans and grants and the projected
15 production of such property, and

16 “(v) the projected energy savings as a
17 result of such loans and grants for im-
18 provements described in subsection
19 (e)(1)(C).

20 “(B) REPORT TO CONGRESS.—Not later
21 than 12 months after receipt of the first report
22 under subparagraph (A) and annually there-
23 after until the last such report is required to be
24 submitted, the Secretary, in consultation with
25 the Secretary of Energy and the Administrator

1 of the Environmental Protection Agency, shall
2 submit a report to Congress regarding the bond
3 program under this section, including informa-
4 tion regarding—

5 “(i) the aggregate of each category of
6 information described in subparagraph (A)
7 (including any independent assessment of
8 projected energy savings), and

9 “(ii) an estimate of the amount of
10 greenhouse gas emissions reduced as a re-
11 sult of such bond program.”.

12 (b) CONFORMING AMENDMENTS.—

13 (1) Paragraph (1) of section 54A(d), as added
14 by section 104 and amended by section 211, is
15 amended by striking “or” at the end of subpara-
16 graph (A), by inserting “or” at the end of subpara-
17 graph (B), and by inserting after subparagraph (B)
18 the following new subparagraph:

19 “(C) a qualified residential energy effi-
20 ciency assistance bond,”.

21 (2) Subparagraph (C) of section 54A(d)(2), as
22 added by section 104 and amended by section 211,
23 is amended by striking “and” at the end of clause
24 (i), by striking the period at the end of clause (ii)

1 and inserting “, and”, and by adding at the end the
 2 following new clause:

3 “(iii) in the case of a qualified resi-
 4 dential energy efficiency assistance bond, a
 5 purpose specified in section 54D(a)(1).”.

6 (3) The table of sections for subpart I of part
 7 IV of subchapter A of chapter 1, as amended by this
 8 Act, is amended by adding at the end the following
 9 new item:

“Sec. 54D. Qualified residential energy efficiency assistance bonds.”.

10 (c) EFFECTIVE DATE.—The amendments made by
 11 this section shall apply to obligations issued after the date
 12 of the enactment of this Act.

13 **SEC. 12013. EXTENSION OF ENERGY EFFICIENT COMMER-**
 14 **CIAL BUILDINGS DEDUCTION.**

15 Subsection (h) of section 179D (relating to termi-
 16 nation) is amended by striking “December 31, 2008” and
 17 inserting “December 31, 2013”.

18 **SEC. 12014. MODIFICATIONS OF ENERGY EFFICIENT APPLI-**
 19 **ANCE CREDIT FOR APPLIANCES PRODUCED**
 20 **AFTER 2007.**

21 (a) IN GENERAL.—Subsection (b) of section 45M (re-
 22 lating to applicable amount) is amended to read as follows:

23 “(b) APPLICABLE AMOUNT.—For purposes of sub-
 24 section (a)—

1 “(1) DISHWASHERS.—The applicable amount
2 is—

3 “(A) \$45 in the case of a dishwasher which
4 is manufactured in calendar year 2008 or 2009
5 and which uses no more than 324 kilowatt
6 hours per year and 5.8 gallons per cycle, and

7 “(B) \$75 in the case of a dishwasher
8 which is manufactured in calendar year 2008,
9 2009, or 2010 and which uses no more than
10 307 kilowatt hours per year and 5.0 gallons per
11 cycle (5.5 gallons per cycle for dishwashers de-
12 signed for greater than 12 place settings).

13 “(2) CLOTHES WASHERS.—The applicable
14 amount is—

15 “(A) \$75 in the case of a residential top-
16 loading clothes washer manufactured in cal-
17 endar year 2008 which meets or exceeds a 1.72
18 modified energy factor and does not exceed a
19 8.0 water consumption factor,

20 “(B) \$125 in the case of a residential top-
21 loading clothes washer manufactured in cal-
22 endar year 2008 or 2009 which meets or ex-
23 ceeds a 1.8 modified energy factor and does not
24 exceed a 7.5 water consumption factor,

1 “(C) \$150 in the case of a residential or
2 commercial clothes washer manufactured in cal-
3 endar year 2008, 2009 or 2010 which meets or
4 exceeds 2.0 modified energy factor and does not
5 exceed a 6.0 water consumption factor, and

6 “(D) \$250 in the case of a residential or
7 commercial clothes washer manufactured in cal-
8 endar year 2008, 2009, or 2010 which meets or
9 exceeds 2.2 modified energy factor and does not
10 exceed a 4.5 water consumption factor.

11 “(3) REFRIGERATORS.—The applicable amount
12 is—

13 “(A) \$50 in the case of a refrigerator
14 which is manufactured in calendar year 2008,
15 and consumes at least 20 percent but not more
16 than 22.9 percent less kilowatt hours per year
17 than the 2001 energy conservation standards,

18 “(B) \$75 in the case of a refrigerator
19 which is manufactured in calendar year 2008 or
20 2009, and consumes at least 23 percent but no
21 more than 24.9 percent less kilowatt hours per
22 year than the 2001 energy conservation stand-
23 ards,

24 “(C) \$100 in the case of a refrigerator
25 which is manufactured in calendar year 2008,

1 2009 or 2010, and consumes at least 25 per-
2 cent but not more than 29.9 percent less kilo-
3 watt hours per year than the 2001 energy con-
4 servation standards, and

5 “(D) \$200 in the case of a refrigerator
6 manufactured in calendar year 2008, 2009 or
7 2010 and which consumes at least 30 percent
8 less energy than the 2001 energy conservation
9 standards.

10 “(4) DEHUMIDIFIERS.—The applicable amount
11 is—

12 “(A) \$15 in the case of a dehumidifier
13 manufactured in calendar year 2008 that has a
14 capacity less than or equal to 45 pints per day
15 and is 7.5 percent more efficient than the appli-
16 cable Department of Energy energy conserva-
17 tion standard effective October 2012, and

18 “(B) \$25 in the case of a dehumidifier
19 manufactured in calendar year 2008 that has a
20 capacity greater than 45 pints per day and is
21 7.5 percent more efficient than the applicable
22 Department of Energy energy conservation
23 standard effective October 2012.”.

24 (b) ELIGIBLE PRODUCTION.—

1 (1) SIMILAR TREATMENT FOR ALL APPLI-
2 ANCES.—Subsection (c) of section 45M (relating to
3 eligible production) is amended—

4 (A) by striking paragraph (2),

5 (B) by striking “(1) IN GENERAL” and all
6 that follows through “the eligible” and inserting
7 “The eligible”, and

8 (C) by moving the text of such subsection
9 in line with the subsection heading and redesign-
10 nating subparagraphs (A) and (B) as para-
11 graphs (1) and (2), respectively.

12 (2) MODIFICATION OF BASE PERIOD.—Para-
13 graph (2) of section 45M(c), as amended by para-
14 graph (1) of this section, is amended by striking “3-
15 calendar year” and inserting “2-calendar year”.

16 (c) TYPES OF ENERGY EFFICIENT APPLIANCES.—
17 Subsection (d) of section 45M (defining types of energy
18 efficient appliances) is amended to read as follows:

19 “(d) TYPES OF ENERGY EFFICIENT APPLIANCE.—
20 For purposes of this section, the types of energy efficient
21 appliances are—

22 “(1) dishwashers described in subsection (b)(1),

23 “(2) clothes washers described in subsection
24 (b)(2),

1 “(3) refrigerators described in subsection
2 (b)(3), and

3 “(4) dehumidifiers described in subsection
4 (b)(4).”.

5 (d) AGGREGATE CREDIT AMOUNT ALLOWED.—

6 (1) INCREASE IN LIMIT.—Paragraph (1) of sec-
7 tion 45M(e) (relating to aggregate credit amount al-
8 lowed) is amended to read as follows:

9 “(1) AGGREGATE CREDIT AMOUNT ALLOWED.—

10 The aggregate amount of credit allowed under sub-
11 section (a) with respect to a taxpayer for any tax-
12 able year shall not exceed \$75,000,000 reduced by
13 the amount of the credit allowed under subsection
14 (a) to the taxpayer (or any predecessor) for all prior
15 taxable years beginning after December 31, 2007.”.

16 (2) EXCEPTION FOR CERTAIN REFRIGERATOR
17 AND CLOTHES WASHERS.—Paragraph (2) of section
18 45M(e) is amended to read as follows:

19 “(2) AMOUNT ALLOWED FOR CERTAIN REFRIG-
20 ERATORS AND CLOTHES WASHERS.—Refrigerators
21 described in subsection (b)(3)(D) and clothes wash-
22 ers described in subsection (b)(2)(D) shall not be
23 taken into account under paragraph (1).”.

24 (e) QUALIFIED ENERGY EFFICIENT APPLIANCES.—

1 (1) IN GENERAL.—Paragraph (1) of section
2 45M(f) (defining qualified energy efficient appliance)
3 is amended to read as follows:

4 “(1) QUALIFIED ENERGY EFFICIENT APPLI-
5 ANCE.—The term ‘qualified energy efficient appli-
6 ance’ means—

7 “(A) any dishwasher described in sub-
8 section (b)(1),

9 “(B) any clothes washer described in sub-
10 section (b)(2),

11 “(C) any refrigerator described in sub-
12 section (b)(3), and

13 “(D) any dehumidifier described in sub-
14 section (b)(4).”.

15 (2) CLOTHES WASHER.—Section 45M(f)(3) (de-
16 fining clothes washer) is amended by inserting
17 “commercial” before “residential” the second place
18 it appears.

19 (3) TOP-LOADING CLOTHES WASHER.—Sub-
20 section (f) of section 45M (relating to definitions) is
21 amended by redesignating paragraphs (4), (5), (6),
22 and (7) as paragraphs (5), (6), (7), and (8), respec-
23 tively, and by inserting after paragraph (3) the fol-
24 lowing new paragraph:

1 “(4) TOP-LOADING CLOTHES WASHER.—The
2 term ‘top-loading clothes washer’ means a clothes
3 washer which has the clothes container compartment
4 access located on the top of the machine and which
5 operates on a vertical axis.”.

6 (4) DEHUMIDIFIER.—Subsection (f) of section
7 45M, as amended by paragraph (3), is amended by
8 redesignating paragraphs (6), (7), and (8) as para-
9 graphs (7), (8) and (9), respectively, and by insert-
10 ing after paragraph (5) the following new para-
11 graph:

12 “(6) DEHUMIDIFIER.—The term ‘dehumidifier’
13 means a self-contained, electrically operated, and
14 mechanically refrigerated encased assembly con-
15 sisting of—

16 “(A) a refrigerated surface that condenses
17 moisture from the atmosphere,

18 “(B) a refrigerating system, including an
19 electric motor,

20 “(C) an air-circulating fan, and

21 “(D) means for collecting or disposing of
22 condensate.”.

23 (5) REPLACEMENT OF ENERGY FACTOR.—Sec-
24 tion 45M(f)(7), as amended by paragraph (4), is
25 amended to read as follows:

1 “(7) MODIFIED ENERGY FACTOR.—The term
2 ‘modified energy factor’ means the modified energy
3 factor established by the Department of Energy for
4 compliance with the Federal energy conservation
5 standard.”.

6 (6) GALLONS PER CYCLE; WATER CONSUMP-
7 TION FACTOR.—Section 45M(f) (relating to defini-
8 tions) is amended by adding at the end the fol-
9 lowing:

10 “(10) GALLONS PER CYCLE.—The term ‘gallons
11 per cycle’ means, with respect to a dishwasher, the
12 amount of water, expressed in gallons, required to
13 complete a normal cycle of a dishwasher.

14 “(11) WATER CONSUMPTION FACTOR.—The
15 term ‘water consumption factor’ means, with respect
16 to a clothes washer, the quotient of the total weight-
17 ed per-cycle water consumption divided by the cubic
18 foot (or liter) capacity of the clothes washer.”.

19 (f) EFFECTIVE DATE.—The amendments made by
20 this section shall apply to appliances produced after De-
21 cember 31, 2007.

1 **SEC. 12015. FIVE-YEAR APPLICABLE RECOVERY PERIOD**
2 **FOR DEPRECIATION OF QUALIFIED ENERGY**
3 **MANAGEMENT DEVICES.**

4 (a) IN GENERAL.—Section 168(e)(3)(B) (relating to
5 5-year property) is amended by striking “and” at the end
6 of clause (v), by striking the period at the end of clause
7 (vi) and inserting “, and”, and by inserting after clause
8 (vi) the following new clause:

9 “(vii) any qualified energy manage-
10 ment device.”.

11 (b) DEFINITION OF QUALIFIED ENERGY MANAGE-
12 MENT DEVICE.—Section 168(i) (relating to definitions
13 and special rules) is amended by inserting at the end the
14 following new paragraph:

15 “(18) QUALIFIED ENERGY MANAGEMENT DE-
16 VICE.—

17 “(A) IN GENERAL.—The term ‘qualified
18 energy management device’ means any energy
19 management device which is installed on real
20 property of a customer of the taxpayer and is
21 placed in service by a taxpayer who—

22 “(i) is a supplier of electric energy or
23 a provider of electric energy services, and

24 “(ii) provides all commercial and resi-
25 dential customers of such supplier or pro-

1 vider with net metering upon the request
2 of such customer.

3 “(B) ENERGY MANAGEMENT DEVICE.—

4 For purposes of subparagraph (A), the term
5 ‘energy management device’ means any time-
6 based meter and related communication equip-
7 ment which is capable of being used by the tax-
8 payer as part of a system that—

9 “(i) measures and records electricity
10 usage data on a time-differentiated basis
11 in at least 24 separate time segments per
12 day,

13 “(ii) provides for the exchange of in-
14 formation between supplier or provider and
15 the customer’s energy management device
16 in support of time-based rates or other
17 forms of demand response, and

18 “(iii) provides data to such supplier or
19 provider so that the supplier or provider
20 can provide energy usage information to
21 customers electronically.

22 “(C) NET METERING.—For purposes of
23 subparagraph (A), the term ‘net metering’
24 means allowing customers a credit for providing
25 electricity to the supplier or provider.”.

1 (c) EFFECTIVE DATE.—The amendments made by
2 this section shall apply to property placed in service after
3 the date of the enactment of this Act.

4 **TITLE XIII—REVENUE**
5 **PROVISIONS**

6 **Subtitle A—Denial of Oil and Gas**
7 **Tax Benefits**

8 **SEC. 13001. DENIAL OF DEDUCTION FOR INCOME ATTRIB-**
9 **UTABLE TO DOMESTIC PRODUCTION OF OIL,**
10 **NATURAL GAS, OR PRIMARY PRODUCTS**
11 **THEREOF.**

12 (a) IN GENERAL.—Subparagraph (B) of section
13 199(c)(4) (relating to exceptions) is amended by striking
14 “or” at the end of clause (ii), by striking the period at
15 the end of clause (iii) and inserting “, or”, and by insert-
16 ing after clause (iii) the following new clause:

17 “(iv) the sale, exchange, or other dis-
18 position of oil, natural gas, or any primary
19 product thereof.”.

20 (b) PRIMARY PRODUCT.—Section 199(c)(4)(B) is
21 amended by adding at the end the following flush sen-
22 tence:

23 “For purposes of clause (iv), the term ‘primary
24 product’ has the same meaning as when used in

1 section 927(a)(2)(C), as in effect before its re-
2 peal.”.

3 (c) CONFORMING AMENDMENTS.—Section 199(c)(4)
4 is amended—

5 (1) in subparagraph (A)(i)(III) by striking
6 “electricity, natural gas,” and inserting “electricity”,
7 and

8 (2) in subparagraph (B)(ii) by striking “elec-
9 tricity, natural gas,” and inserting “electricity”.

10 (d) EFFECTIVE DATE.—The amendments made by
11 this section shall apply to taxable years beginning after
12 December 31, 2007.

13 **SEC. 13002. 7-YEAR AMORTIZATION OF GEOLOGICAL AND**
14 **GEOPHYSICAL EXPENDITURES FOR CERTAIN**
15 **MAJOR INTEGRATED OIL COMPANIES.**

16 (a) IN GENERAL.—Subparagraph (A) of section
17 167(h)(5) (relating to special rule for major integrated oil
18 companies) is amended by striking “5-year” and inserting
19 “7-year”.

20 (b) EFFECTIVE DATE.—The amendment made by
21 this section shall apply to amounts paid or incurred after
22 the date of the enactment of this Act.

1 **SEC. 13003. CLARIFICATION OF DETERMINATION OF FOR-**
2 **EIGN OIL AND GAS EXTRACTION INCOME.**

3 (a) IN GENERAL.—Paragraph (1) of section 907(c)
4 is amended by redesignating subparagraph (B) as sub-
5 paragraph (C), by striking “or” at the end of subpara-
6 graph (A), and by inserting after subparagraph (A) the
7 following new subparagraph:

8 “(B) so much of any transportation of
9 such minerals as occurs before the fair market
10 value event, or”.

11 (b) FAIR MARKET VALUE EVENT.—Subsection (c) of
12 section 907 is amended by adding at the end the following
13 new paragraph:

14 “(6) FAIR MARKET VALUE EVENT.—For pur-
15 poses of this section, the term ‘fair market value
16 event’ means, with respect to any mineral, the first
17 point in time at which such mineral—

18 “(A) has a fair market value which can be
19 determined on the basis of a transfer, which is
20 an arm’s length transaction, of such mineral
21 from the taxpayer to a person who is not re-
22 lated (within the meaning of section 482) to
23 such taxpayer, or

24 “(B) is at a location at which the fair mar-
25 ket value is readily ascertainable by reason of
26 transactions among unrelated third parties with

1 respect to the same mineral (taking into ac-
2 count source, location, quality, and chemical
3 composition).”.

4 (c) SPECIAL RULE FOR CERTAIN PETROLEUM
5 TAXES.—Subsection (c) of section 907, as amended by
6 subsection (b), is amended to by adding at the end the
7 following new paragraph:

8 “(7) OIL AND GAS TAXES.—In the case of any
9 tax imposed by a foreign country which is limited in
10 its application to taxpayers engaged in oil or gas ac-
11 tivities—

12 “(A) the term ‘oil and gas extraction taxes’
13 shall include such tax,

14 “(B) the term ‘foreign oil and gas extrac-
15 tion income’ shall include any taxable income
16 which is taken into account in determining such
17 tax (or is directly attributable to the activity to
18 which such tax relates), and

19 “(C) the term ‘foreign oil related income’
20 shall not include any taxable income which is
21 treated as foreign oil and gas extraction income
22 under subparagraph (B).”.

23 (d) CONFORMING AMENDMENTS.—

24 (1) Subparagraph (C) of section 907(c)(1), as
25 redesignated by this section, is amended by inserting

1 “or used by the taxpayer in the activity described in
2 subparagraph (B)” before the period at the end.

3 (2) Subparagraph (B) of section 907(c)(2) is
4 amended to read as follows:

5 “(B) so much of the transportation of such
6 minerals or primary products as is not taken
7 into account under paragraph (1)(B),”.

8 (e) EFFECTIVE DATE.—The amendments made by
9 this section shall apply to taxable years beginning after
10 the date of the enactment of this Act.

11 **Subtitle B—Clarification of** 12 **Eligibility for Certain Fuel Credits**

13 **SEC. 13011. CLARIFICATION OF ELIGIBILITY FOR RENEW-** 14 **ABLE DIESEL CREDIT.**

15 (a) COPRODUCTION WITH PETROLEUM FEED-
16 STOCK.—

17 (1) IN GENERAL.—Paragraph (3) of section
18 40A(f) (defining renewable diesel) is amended by
19 adding at the end the following flush sentence:

20 “Such term does not include any fuel derived from
21 coprocessing biomass with a feedstock which is not
22 biomass. For purposes of this paragraph, the term
23 ‘biomass’ has the meaning given such term by sec-
24 tion 45K(c)(3).”.

1 (2) CONFORMING AMENDMENT.—Paragraph (3)
2 of section 40A(f) is amended by striking “(as de-
3 fined in section 45K(c)(3))”.

4 (b) CLARIFICATION OF ELIGIBILITY FOR ALTER-
5 NATIVE FUEL CREDIT.—

6 (1) IN GENERAL.—Subparagraph (F) of section
7 6426(d)(2) is amended by striking “hydrocarbons”
8 and inserting “fuel”.

9 (2) CONFORMING AMENDMENT.—Section 6426
10 is amended by adding at the end the following new
11 subsection:

12 “(h) DENIAL OF DOUBLE BENEFIT.—No credit shall
13 be determined under subsection (d) or (e) with respect to
14 any fuel with respect to which credit may be determined
15 under subsection (b) or (c) or under section 40 or 40A.”.

16 (c) EFFECTIVE DATE.—

17 (1) IN GENERAL.—Except as provided in para-
18 graph (2), the amendments made by this section
19 shall apply to fuel produced, and sold or used, after
20 June 30, 2007.

21 (2) CLARIFICATION OF ELIGIBILITY FOR AL-
22 TERNATIVE FUEL CREDIT.—The amendment made
23 by subsection (b) shall take effect as if included in
24 section 11113 of the Safe, Accountable, Flexible, Ef-

1 ficient Transportation Equity Act: A Legacy for
2 Users.

3 **SEC. 13012. CLARIFICATION THAT CREDITS FOR FUEL ARE**
4 **DESIGNED TO PROVIDE AN INCENTIVE FOR**
5 **UNITED STATES PRODUCTION.**

6 (a) BIODIESEL FUELS CREDIT.—Paragraph (5) of
7 section 40A(d), as added by subsection (c), is amended
8 to read as follows:

9 “(5) LIMITATION TO BIODIESEL WITH CONNEC-
10 TION TO THE UNITED STATES.—No credit shall be
11 determined under this section with respect to any
12 biodiesel unless—

13 “(A) such biodiesel is produced in the
14 United States for use as a fuel in the United
15 States, and

16 “(B) the taxpayer obtains a certification
17 (in such form and manner as prescribed by the
18 Secretary) from the producer of the biodiesel
19 which identifies the product produced and the
20 location of such production.

21 For purposes of this paragraph, the term ‘United
22 States’ includes any possession of the United
23 States.”.

1 (b) EXCISE TAX CREDIT.—Paragraph (2) of section
2 6426(i), as added by subsection (c), is amended to read
3 as follows:

4 “(2) BIODIESEL AND ALTERNATIVE FUELS.—
5 No credit shall be determined under this section
6 with respect to any biodiesel or alternative fuel un-
7 less—

8 “(A) such biodiesel or alternative fuel is
9 produced in the United States for use as a fuel
10 in the United States, and

11 “(B) the taxpayer obtains a certification
12 (in such form and manner as prescribed by the
13 Secretary) from the producer of such biodiesel
14 or alternative fuel which identifies the product
15 produced and the location of such production.”.

16 (c) PROVISIONS CLARIFYING TREATMENT OF FUELS
17 WITH NO NEXUS TO THE UNITED STATES.—

18 (1) ALCOHOL FUELS CREDIT.—Subsection (d)
19 of section 40 is amended by adding at the end the
20 following new paragraph:

21 “(6) LIMITATION TO ALCOHOL WITH CONNEC-
22 TION TO THE UNITED STATES.—No credit shall be
23 determined under this section with respect to any al-
24 cohol which is produced outside the United States
25 for use as a fuel outside the United States. For pur-

1 poses of this paragraph, the term ‘United States’ in-
2 cludes any possession of the United States.”.

3 (2) BIODIESEL FUELS CREDIT.—Subsection (d)
4 of section 40A is amended by adding at the end the
5 following new paragraph:

6 “(5) LIMITATION TO BIODIESEL WITH CONNEC-
7 TION TO THE UNITED STATES.—No credit shall be
8 determined under this section with respect to any
9 biodiesel which is produced outside the United
10 States for use as a fuel outside the United States.
11 For purposes of this paragraph, the term ‘United
12 States’ includes any possession of the United
13 States.”.

14 (3) EXCISE TAX CREDIT.—

15 (A) IN GENERAL.—Section 6426, as
16 amended by section 311, is amended by adding
17 at the end the following new subsection:

18 “(i) LIMITATION TO FUELS WITH CONNECTION TO
19 THE UNITED STATES.—

20 “(1) ALCOHOL.—No credit shall be determined
21 under this section with respect to any alcohol which
22 is produced outside the United States for use as a
23 fuel outside the United States.

24 “(2) BIODIESEL AND ALTERNATIVE FUELS.—
25 No credit shall be determined under this section

1 with respect to any biodiesel or alternative fuel
2 which is produced outside the United States for use
3 as a fuel outside the United States.

4 For purposes of this subsection, the term ‘United States’
5 includes any possession of the United States.”.

6 (B) CONFORMING AMENDMENT.—Sub-
7 section (e) of section 6427 is amended by redes-
8 ignating paragraph (5) as paragraph (6) and by
9 inserting after paragraph (4) the following new
10 paragraph:

11 “(5) LIMITATION TO FUELS WITH CONNECTION
12 TO THE UNITED STATES.—No amount shall be pay-
13 able under paragraph (1) or (2) with respect to any
14 mixture or alternative fuel if credit is not allowed
15 with respect to such mixture or alternative fuel by
16 reason of section 6426(i).”.

17 (d) EFFECTIVE DATE.—

18 (1) IN GENERAL.—Except as provided in para-
19 graph (2), the amendments made by this section
20 shall apply to fuel produced, and sold or used, after
21 the date of the enactment of this Act.

22 (2) PROVISIONS CLARIFYING TREATMENT OF
23 FUELS WITH NO NEXUS TO THE UNITED STATES.—

24 (A) IN GENERAL.—Except as otherwise
25 provided in this paragraph, the amendments

1 made by subsection (c) shall take effect as if in-
2 cluded in section 301 of the American Jobs
3 Creation Act of 2004.

4 (B) ALTERNATIVE FUEL CREDITS.—So
5 much of the amendments made by subsection
6 (c) as relate to the alternative fuel credit or the
7 alternative fuel mixture credit shall take effect
8 as if included in section 11113 of the Safe, Ac-
9 countable, Flexible, Efficient Transportation
10 Equity Act: A Legacy for Users.

11 (C) RENEWABLE DIESEL.—So much of the
12 amendments made by subsection (c) as relate to
13 renewable diesel shall take effect as if included
14 in section 1346 of the Energy Policy Act of
15 2005.

16 **TITLE XIV—OTHER PROVISIONS**

17 **Subtitle A—Studies**

18 **SEC. 14001. CARBON AUDIT OF THE TAX CODE.**

19 (a) STUDY.—The Secretary of the Treasury shall
20 enter into an agreement with the National Academy of
21 Sciences to undertake a comprehensive review of the Inter-
22 nal Revenue Code of 1986 to identify the types of and
23 specific tax provisions that have the largest effects on car-
24 bon and other greenhouse gas emissions and to estimate
25 the magnitude of those effects.

1 (b) REPORT.—Not later than 2 years after the date
2 of enactment of this Act, the National Academy of
3 Sciences shall submit to Congress a report containing the
4 results of study authorized under this section.

5 (c) AUTHORIZATION OF APPROPRIATIONS.—There is
6 authorized to be appropriated to carry out this section
7 \$1,500,000 for the period of fiscal years 2008 and 2009.

8 **SEC. 14002. COMPREHENSIVE STUDY OF BIOFUELS.**

9 (a) STUDY.—The Secretary of the Treasury, in con-
10 sultation with the Secretary of Agriculture, the Secretary
11 of Energy, and the Administrator of the Environmental
12 Protection Agency, shall enter into an agreement with the
13 National Academy of Sciences to produce an analysis of
14 current scientific findings to determine—

15 (1) current biofuels production, as well as pro-
16 jections for future production,

17 (2) the maximum amount of biofuels production
18 capable on United States farmland,

19 (3) the domestic effects of a dramatic increase
20 in biofuels production on, for example—

21 (A) the price of fuel,

22 (B) the price of land in rural and subur-
23 ban communities,

24 (C) crop acreage and other land use,

1 (D) the environment, due to changes in
2 crop acreage, fertilizer use, runoff, water use,
3 emissions from vehicles utilizing biofuels, and
4 other factors,

5 (E) the price of feed,

6 (F) the selling price of grain crops,

7 (G) exports and imports of grains,

8 (H) taxpayers, through cost or savings to
9 commodity crop payments, and

10 (I) the expansion of refinery capacity,

11 (4) the ability to convert corn ethanol plants for
12 other uses, such as cellulosic ethanol or biodiesel,

13 (5) a comparative analysis of corn ethanol
14 versus other biofuels and renewable energy sources,
15 considering cost, energy output, and ease of imple-
16 mentation, and

17 (6) the need for additional scientific inquiry,
18 and specific areas of interest for future research.

19 (b) REPORT.—The National Academy of Sciences
20 shall submit an initial report of the findings of the report
21 required under subsection (a) to the Congress not later
22 than 3 months after the date of the enactment of this Act,
23 and a final report not later than 6 months after such date
24 of enactment.

1 **Subtitle B—Application of Certain**
2 **Labor Standards on Projects Fi-**
3 **nanced Under Tax Credit Bonds**

4 **SEC. 14011. APPLICATION OF CERTAIN LABOR STANDARDS**
5 **ON PROJECTS FINANCED UNDER TAX CREDIT**
6 **BONDS.**

7 Subchapter IV of chapter 31 of title 40, United
8 States Code, shall apply to projects financed with the pro-
9 ceeds of any tax credit bond (as defined in section 54A
10 of the Internal Revenue Code of 1986).

Passed the House of Representatives August 4,
2007.

Attest:

Clerk.

110TH CONGRESS
1ST Session

H. R. 3221

AN ACT

Moving the United States toward greater energy independence and security; developing innovative new technologies, reducing carbon emissions, creating green jobs, protecting consumers, increasing clean renewable energy production, and modernizing our energy infrastructure, and to amend the Internal Revenue Code of 1986 to provide tax incentives for the production of renewable energy and energy conservation.